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ABOUT OUR AUTHORS

THE DISCIPLINE OF THE BALANCE OF PAYMENTS

RALPH C. WOOD is chief of the European Section in the Division of International Finance of the Federal Reserve Board. Before joining the board's staff, he served in Paris with the ECA and its successor agencies and was for four years deputy United States representative to the Managing Board of the European Payments Union. He has previously been connected at different times with the United States Department of Commerce, the War Production Board, and the National Bureau of Economic Research.

ROBERTO T. ALEMANN studied law at the University of Buenos Aires and economics in Bern, Switzerland. He was a journalist from 1949 to 1956 and then entered government service as financial counselor in London. He participated in the Paris Club negotiations in 1956–57. He was director of economic policy at the Argentine treasury in 1958; adviser and undersecretary to the economics minister in 1959; and has been financial counselor in Washington since late 1959.

FRANK A. SOUTHARD, JR., is United States Executive Director of the International Monetary Fund in Washington, D.C. After receiving his Ph.D. degree from the University of California, he taught at the University of California and then at Cornell University from 1931 to 1948. He has been with the International Monetary Fund since 1949. He has also served as special assistant to the Secretary of the Treasury since 1949. He is the author of *American Industry in Europe* (1931); *Canadian-American Industry* (1936); *Foreign Exchange Practice and Policy* (1940); *The Finances of European Liberation* (1946); and various published articles.

FRITZ MACHLUP is Walker Professor of Economics and International Finance at Princeton University. He is a past president of the Southern Economic Association, a past vice-president of the American Economic Association, and at present he is first vice-president of the American Association of University Professors.

WALTER J. SEDWITZ, now Research Fellow at the Council on Foreign Relations, is on leave from the Federal Reserve Bank of New York, where he is special assistant in the research department. Educated at the University of Paris, Columbia University, and George Washington University, Mr. Sedwitz has been on the faculty of Brooklyn College, has lectured at the World Bank Development Institute, and has served with the United Nations and with the Department of Commerce. He has also served as adviser to the Central Bank of El Salvador.

FINANCING THE DECADE OF THE SIXTIES

ROBERT A. KAVESH is associate professor of economics and finance at the Graduate School of Business Administration of New York University. He previously

served as senior economics specialist of the Chase-Manhattan Bank. He holds M.A. and Ph.D. degrees from Harvard University.

JUDITH MACKEY is vice-president of Townsend-Greenspan and Company, Inc. Before joining this firm in 1958, she did research on the capital markets for the Life Insurance Association of America and for the National Bureau of Economics Research. She has served on the faculty of Adelphi College.

PAUL S. NADLER is an assistant professor of business administration at Rutgers University, an editorial writer for the *New York Journal of Commerce*, and a member of the faculty of the Stonier Graduate School of Banking. He was previously associated with the American Bankers Association.

CARL H. MADDEN has been dean of the College of Business Administration at Lehigh University since July, 1960. Prior to joining the Lehigh faculty, he was with the Federal Reserve Bank of New York for six years, serving as manager of its public information department (1957–60). He holds a Ph.D. degree from the University of Virginia. He is the author of *The Money Side of the Street*, published in 1949 by the Federal Reserve Bank of New York.

JOHN A. COCHRAN has been associate professor of economics at Southern Illinois University since 1957. He received his Ph.D. degree from Harvard University in 1949 and then joined the faculty of the University of Illinois. In 1956–57 he served as economist in the Monetary Economics Section of the Research Department of the Federal Reserve Bank of New York. He is the author of several papers in the money and banking field.

THE OUTLOOK FOR THE CAPITAL MARKETS

ROY L. REIERSON is senior vice-president and chief economist of Bankers Trust Company, New York, and a member of the bank's senior management. He is chairman of the research committee of the American Bankers Association, a fellow of the American Statistical Association, a director of the Guardian Life Insurance Company of America, and a trustee of the Bay Ridge Savings Bank. He received his M.B.A. and Ph.D. degrees from Northwestern University and has served on the faculties of Northwestern University and of the Graduate School of Business Administration of New York University. He has served as consultant to a number of government agencies.

SAUL B. KLAMAN is director of research of the National Association of Mutual Savings Banks. He was educated at the University of Massachusetts, Michigan State University, and New York University. He has served on the staff of the Board of Governors of the Federal Reserve System and has also been associated with the National Bureau of Economic Research. His book, *The Postwar Residential Mortgage Market*, will be published by Princeton University Press next month.

BENJAMIN U. RATCHFORD is vice-president in charge of research at the Federal Reserve Bank of Richmond. He holds M.A. and Ph.D. degrees from Duke University. He is the author of *American State Debts, Public Expenditures in Australia*, and a number of articles.

GEORGE T. CONKLIN, JR., is senior vice-president and chairman of the finance committee of the Guardian Life Insurance Company of America. He has been adjunct professor of finance at New York University since 1953. He is a trustee and a member of the finance committee and the executive committee of Teachers Insurance and Annuity Association and serves on advisory committees of both the Amos Tuck Graduate School of Business Administration, Dartmouth University, and the Wharton School of Finance and Commerce, University of Pennsylvania.

ROBERT P. MAYO is vice-president of the Continental Illinois National Bank and Trust Company of Chicago. He holds an M.B.A. degree from the University of Washington and served in the United States Treasury Department from 1941 to 1960 in various capacities. He was chief of the Debt Analysis Staff from 1953 to 1959, when he became assistant to the Secretary of the Treasury, Robert Anderson, specializing in debt management.

LONG-TERM SMALL BUSINESS FINANCING

GLENN R. MILLER is a partner in Cruttenden, Podesta & Company, an investment banking firm. He is in charge of the firm's underwriting and research activities. He received his M.B.A. degree from Northwestern University.

GORDON W. MCKINLEY is executive director of the economic and investment research planning and development department of the Prudential Life Insurance Company of America. He received his Ph.D. degree from Ohio State University and has taught at Lehigh, Ohio State, and Rutgers universities. He was formerly a director of the American Finance Association.

ALGIE CHOATE is chief of the Investment Division of the Small Business Administration, Dallas, Texas. He was formerly vice-president of an investment banking firm.

HAROLD W. STEVENSON is associate professor of finance at the University of Minnesota. He received his Ph.D. degree from the University of Michigan and has taught at Michigan State and Northwestern universities. He is the author of *Common Stock Financing*.

ROBERT M. SOLDOFSKY is associate professor of finance at the State University of Iowa. He received his Ph.D. degree from Washington University in St. Louis. He has contributed several articles to the *Journal of Finance*.

IMPACT OF PENSION FUNDS

EUGENE MILLER is director of public affairs and communications at McGraw-Hill Publishing Company. He was previously associate managing editor of *Business Week* magazine. He received his M.B.A. degree from the Graduate School of Business Administration, New York University.

VICTOR L. ANDREWS is assistant professor of finance in the School of Industrial Management at Massachusetts Institute of Technology. He also received his Ph.D. degree from M.I.T. He has prepared a monograph on corporate and state and local pension funds for the Commission on Money and Credit.

PAUL P. HARBRECHT is assistant professor of law at the University of Detroit and is also a consultant to the Fund for the Republic. He received his S.J.D. degree from Columbia University, and, before going to the University of Detroit, served as research-project director at the Twentieth Century Fund and on the faculty of St. Louis University. He was ordained a priest of the Roman Catholic church in 1955. He is the author of *Pension Funds and Economic Power* and *Toward the Paraproprietal Society* (with A. A. BERLE, JR.).

ROGER F. MURRAY is S. Sloan Colt Professor of Banking and Finance at the Graduate School of Business of Columbia University. He is also a member of the research staff of the National Bureau of Economic Research, where he is directing the research program on the economics of pensions.

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THE DISCIPLINE OF THE BALANCE OF PAYMENTS

POSTWAR EXPERIENCE IN EUROPE*

RALPH C. WOOD
Board of Governors of the Federal Reserve System

THERE SEEMS TO BE a tendency to view the discipline of the balance of payments as something applicable primarily or even exclusively to countries in actual or potential balance-of-payments deficit. The first two parts of this paper deal with its subject from this point of view. The first part attempts to show that, in most of western Europe, what we now think of as the normal balance-of-payments discipline operative against chronic external deficits was in fact operative only to a limited extent during the first half-dozen years or so after World War II; it also suggests that the gradual re-establishment of conditions under which that discipline could again operate is, for present purposes, the main fact of interest about the early postwar period. The second part of the paper comments on the operation of the discipline against chronic external deficits during recent years. The third part considers the question of balance-of-payments discipline in situations of chronic external surplus, with particular reference to Germany.

It should be noted that this paper deals only with western Europe and uses the terms "Europe" and "western Europe" interchangeably to mean the latter.

* This paper, the following papers by Roberto T. Alemann, Frank A. Southard, Jr., and Fritz Machlup, and the discussion of the first three papers by Walter Sedwitz were presented at a meeting of the American Finance Association in St. Louis on December 28, 1960. The program was under the chairmanship of Miroslav A. Kriz, First National City Bank of New York.

This paper reflects the personal opinion of the author and must not be assumed to represent the views of the Board of Governors of the Federal Reserve System.

I. Early Postwar Status of the Balance-of-Payments Discipline

Given the acute balance-of-payments problems of early postwar Europe, the statement that the discipline of the balance of payments was then operative only to a limited extent obviously calls for explanation. To begin with, and speaking for the moment in general terms—without reference either to the early postwar economic policies of European countries or to the extenuating circumstances in which some of those policies were applied—the mere fact that a country struggles to overcome a balance-of-payments deficit does not necessarily mean that it is operating under something that can meaningfully be characterized as a balance-of-payments "discipline." Limited holdings of gold and foreign exchange and limited availabilities in loans or gifts from abroad must, sooner or later, force any country in substantial external deficit to balance its external accounts. Without scorning the salutary effects that having to "scrape the bottom of the barrel" may have on policy, it is relevant to point out that when a country has reached, or is approaching, the bottom of its external reserves barrel, in many cases what that situation reflects is the absence of balance-of-payments discipline—reflects, that is, the failure of the country to follow appropriate policies previously. Clearly, therefore, the concept of the "discipline" of the balance of payments connotes primarily a set of continuing policies, or a set of constraints on policy, rather than the mere fact that a country that has exhausted most of its external reserves must impose severe corrective measures.

Second, however, the kind of constraints imposed upon a country by the need for long-run balance in its external accounts depends in part on the character of the system of international trade and payments within which the country is functioning. Even if the system is one of rigorous bilateralism and of extensive use of quantitative trade restrictions, the country will have to balance its accounts—probably even more narrowly, in fact, than under a liberal trading system; but the resulting constraints on internal policy will pertain largely, if not exclusively, to the question of aggregate expenditure in relation to aggregate income. On the other hand, the constraints on a country functioning under a multilateral system of relatively free trade must include considerations of economic efficiency as well as of the balance of expenditure. This follows from the fact that a multilateral system of relatively free trade implies international competition. If it is assumed that the system of international trade which is normal for a

particular group of countries is a system of multilateralism rather than of bilateralism—which would seem a reasonable assumption regarding western Europe in the present era—the discipline of the balance of payments should be defined broadly as the set of constraints imposed on the internal and external policies of each of those countries by the need to maintain long-run equilibrium in its external balance of payments, under a system of international trade that is largely unrestricted except by internationally agreed tariffs.

Perhaps it will now be more clear why it was suggested earlier that in most of western Europe the discipline of the balance of payments was operative only to a limited extent during the early postwar years. On the external side, the multilateral trading system had broken down, the international trade of Europe at that time (as in the 1930's) being dominated by quantitative trade restrictions and bilateralism. On the internal side, the continued reliance primarily on direct controls—while probably necessary for a time—hamstrung economic efficiency; in addition, the need for restraint of internal expenditure because of balance-of-payments considerations was either not clearly realized or not fully accepted. In February, 1948, D. H. Robertson was asked by a group of journalists whether it "would be fair to say that Western capitalism has broken down under the impact of two world wars, and there is very little hope of effective repair." In his reply, Robertson said in effect that what had broken down was postwar economic policy. Specifically, he said that "if anything must be said to have broken down, it is . . . the idea that a country dependent on foreign trade can allow a complete divorce between its internal and external monetary arrangement."[1]

In addition, there was the Marshall Plan. It would be an exaggeration, of course, to say that the Marshall Plan completely suspended the balance-of-payments discipline in Europe during the years of its operation. Few, if any, of the aid-receiving countries ever thought they had been allocated all the external aid they needed; moreover, it was understood from the beginning that the aid program was temporary. Thus all the recipient countries were continually under some pressure to balance their external accounts, especially during the latter years of the program. As a result of the aid program, however,

1. D. H. Robertson, *Utility and All That* (London: George Allen & Unwin Ltd., 1952), p. 147. It has been pointed out that in August, 1947, at the time of the first postwar sterling crisis, the Chancellor of the Exchequer noted with apparent surprise the contrast between the external British deficit that had developed and the "relative ease of the purely domestic financial position"—this "relative ease" being the product of postwar monetary expansion on top of the suppressed inflation of wartime (Miroslav A. Kriz, "Gold in World Monetary Affairs Today," *Princeton Essays in International Finance*, No. 34, June, 1959, pp. 27–28).

the levels of economic activity in those countries did not have to be constricted to the point at which import requirements could be met out of export earnings and other normal inflows. Moreover, a perverse incentive was implicit in the way the Marshall Plan was administered: the fact that the amounts of aid extended to the different countries tended to vary directly with the size of their external deficits. The perverseness of this incentive was enhanced by the fact that the bulk of Marshall Plan aid was extended on a free-grant basis. It could therefore have been predicted that at least some of the countries for at least some of the time would act on the assumption that the larger the deficit, the larger the aid; and there is not much doubt that this did happen.

All these factors together—the extent of bilateralism and discrimination in international trade, widespread use of direct controls internally as well as externally, the tendency at that time to think of internal and external finance as separable problems, and, finally, the Marshall Plan with its perverse incentive—constitute the principal evidence for the view that during the first half-dozen years or so after the war only a weakened balance-of-payments discipline was operative against chronic external deficit positions in most of western Europe. If this view is correct, the most important early postwar European developments related to the discipline of the balance of payments must have concerned the re-establishment of conditions under which a discipline effectively operative against chronic balance-of-payments deficits would again exist. In addition to substantially increased production, which was a prerequisite to recovery and progress in practically any direction, there were three essential conditions: first, the ending of chronic inflation; second, getting rid of the direct controls that tended to frustrate initiative and efficiency; and, third, re-establishing a multilateral system of trade and payments that would reintroduce competition from abroad into each national market. These three things, together with increased output, would tend to make disciplined behavior by the countries concerned both possible and necessary.

It seems unnecessary to review in detail at this late date the manner in which the prerequisite conditions were established and a balance-of-payments discipline effective against chronic balance-of-payments deficits restored; it should suffice to note the key facts. First, while Europe has clearly not been immune to upward pressures on prices during the last six or seven years, in almost all countries the chronic inflation of the early postwar period ended years ago. In addition, although some European governments retain, on a stand-by basis, broad

powers for direct economic controls, comparatively little use has been made of such powers in recent years. Finally, we have all seen the gradual evolution of a multilateral trade and payments system in Europe, from the European Payments Union and the OEEC trade liberalization program of a decade ago to the system of non-resident convertibility and increasing non-discrimination in trade that exists today. This evolution, which has been assisted by the increasingly important work of the International Monetary Fund, has in turn reflected the gradual re-establishment of a general multilateral system of the kind for which the Fund was created.

Although formal non-resident convertibility of European currencies was established only at the end of 1958, its evolution had indeed been gradual, and much of its substance existed earlier—notably after the British decision of February, 1955, to support the market for transferable sterling. This means that most of the conditions necessary to a balance-of-payments discipline operative against chronic balance-of-payments deficits have to a considerable extent been present in Europe during the last five or six years, instead of just the last two years or so. As a result, the period in which the present discipline has been tested is longer than it might at first glance appear.

II. The Discipline in Operation against Chronic External Deficits

Turning to the operation in recent years of the present discipline against chronic deficits, it is relevant to point out that the effectiveness of such a discipline is evidenced more by the infrequency of infractions of disciplined behavior than by the way in which the infractions that do occur are handled. It is therefore worth noting that chronic balance-of-payments deficits have been rather rare in Europe in recent years.

The French problem of 1956–58 was a case of chronic deficit up to the time when working reserves of gold and foreign exchange were substantially exhausted. From that moment on, it was essentially a test of French ability and willingness to recognize and to accept as a permanent fact of life the balance-of-payments discipline that was then emerging. The French inflation and external deficit of 1956–58 were the result, quite obviously, of expenditure that was excessive in relation to output potential, effected both through large public deficits and private credit expansion. Until the latter part of 1957 the inflation was obscured by absorption through an import surplus rather than by price increases; and for part of the time it had been concealed by manipulation of price indexes to prevent or limit their rise. Cor-

rective action—including two franc devaluations aggregating nearly 30 per cent—was eventually forced by substantial exhaustion of working reserves of gold and foreign exchange, which declined by about $1.3 billion—a drop of two-thirds—from November, 1955, to late 1957.

For present purposes, interest centers on the kinds of corrective action chosen and on the extent to which that action was influenced by awareness of the new balance-of-payments discipline. Antoine Pinay, minister of finance in 1958–59, has told of how, after the initial decision in favor of a "surgical operation" rather than "medical treatment" (i.e., a drastic program rather than one that would merely slow down the rate of inflation), a decision was necessary on whether to carry out the "operation" in the context of a closed or an open economy. The practical question involved was whether to devalue the currency and reinstate French trade-liberalization commitments in OEEC and in the European Economic Community—then about to get under way—or to refuse both devaluation and liberalization. Pinay comments that, had France followed the latter course, "she would have been forced into sterile autarchy, and that at a time when almost all Western countries were taking first steps toward convertibility and were seeking new forms of free exchange."[2] Acceptance of a balance-of-payments discipline of the kind defined in this paper seems implicit in that statement.

Similarly, the Spanish stabilization program of July, 1959, reflected some recognition of the dangers in the progressive isolation of Spain from the world economy up to that time. As part of that program, the Spanish government undertook commitments providing for the gradually increased exposure of the Spanish economy to pressures from abroad, in addition to measures of internal financial stabilization. Although there has been some progress in the liberalization of Spanish imports, much remains to be done along these lines.

Between 1954 and the latter part of 1957, Britain faced a series of balance-of-payments problems, beginning with a current-account deficit resulting from an internal investment boom, passing through various intervening strains (including drawings on the central dollar pool by the outer sterling area and also speculative outflows caused by the Suez crisis in 1956) and reaching a climax in the bear raid of 1957. British acceptance of the principle of balance-of-payments discipline was clearly evidenced during the 1954–57 period both by her strong

2. Antoine Pinay, "Economic Revolution in France," *Foreign Affairs*, July, 1959, p. 590.

internal policy responses to the external drains and by the fact that Britain went through the entire period without any retreat from trade liberalization as established up to that time. Her successful avoidance of a retreat from liberalization even in 1957 must have stimulated British confidence and could reasonably be expected to influence her handling of external deficits that might arise in the future. The 1956–57 experience must also have made a deep impression on world thinking as to what can be accomplished by strong policy in situations of that kind. What it showed was that resolute action by the country concerned, with substantial assistance from the International Monetary Fund, could stop a massive speculative attack even in the case of a currency as vulnerable to speculation as sterling.

If a country incurs large and continuing balance-of-payments deficits for a long enough period of time, it will, of course, lose all its external reserves (including readily available external aid). This fact provides a strong incentive for countries to follow policies designed to prevent long-continued drains on their external reserves. One might reasonably conclude, in fact, that even if the "mechanism of external adjustment" envisaged by gold-standard theory does not exist or is not allowed to operate, the need to avoid exhaustion of external reserves will at some point motivate adjustment semiautomatically; the facts of the case will eventually compel official action to correct the situation. What happened in France in 1956–58 is a clear case in point. The question that now arises is whether there is any compulsion toward corrective action in the case of countries in chronic external surplus.

III. Balance-of-Payments Discipline in the Case of Chronic External Surplus

As noted at the outset, there seems to be a tendency to view the discipline of the balance of payments as something applicable primarily or even exclusively to countries in actual or potential balance-of-payments deficit. In the light of this tendency, which probably stems mainly from the punitive connotations of the word "discipline," there may be some opposition to treating situations of balance-of-payments surplus as problems related to the discipline of the balance of payments. It may be felt that the behavior expected of countries tending to have chronic surpluses in their balances of payments involves the "rules of the game" rather than "balance-of-payments discipline."

The point seems to be terminological rather than substantive. To the extent that a surplus country observes the "rules of the game"—

i.e., follows policies that will tend to eliminate or reduce its external surplus—it does so for internal reasons or in response to the urging of interested foreign countries or international organizations, or for some combination of internal and external considerations. In any case, it takes action along the lines indicated presumably because it feels constrained to do so. The discipline of the balance of payments has been defined above as "the set of constraints imposed on the internal and external policies [of a country] by the need to maintain long-run equilibrium in its external balance of payments. . . ." The fact that the constraints felt by surplus countries may be weaker than those felt by deficit countries does not mean that such constraints are non-existent. The "rules-of-the-game" concept has an aura of voluntariness, regarding the implied behavior to be followed, that seems rather outdated in this era of strong external pressure on surplus countries intended to persuade them to follow "good-creditor" policies.

The outstanding present-day case involving the question of balance-of-payments discipline against chronic surplus positions is, of course, Germany. Since 1952 official German reserves of gold and foreign exchange have risen from the equivalent of a little over $1 billion to more than $7.5 billion. In 1960 the official reserves increased by the equivalent of about $2 billion; the current-account surplus for the year was only half that amount, the remainder consisting largely of an inflow of what are essentially short-term funds. Despite various measures to curtail this inflow, it has continued—via channels that circumvent the controls—partly because of the attraction of high interest rates and partly because there has clearly been some recurrence of speculation on a revaluation of the deutsche mark. However, the German authorities have denied any intention to take such action, and for some months they have been concentrating on the preparation of a package of alternative measures for curtailing the over-all surplus, centering in a substantial increase in German long-term aid to underdeveloped countries to a figure on the order of $1 billion. Part of this program requires legislative approval, and the necessary legislative action has not yet (December, 1960) been completed. Even after the program is in effect, some time will have to elapse before its effectiveness can be judged.

A country in chronic balance-of-payments surplus obviously cannot go on piling up reserves forever, because the deficit countries will eventually rebel and take steps to curtail the drain on their reserves. However, experience shows only too clearly that the piling-up of re-

serves by a surplus country can continue for many years. The main reason for its having done so in the German case stems from the fact that the German economic position has been one not only of chronic external surplus but also of almost equally chronic internal boom. In such a situation the policies needed for internal balance and the policies needed for external balance are in conflict—or at least they appear to be in conflict—and priority has been given to the problem of internal balance. This has been done through the application of strong anti-inflationary policy, which, of course, has contributed heavily to the maintenance of the external surplus.

It is true that conflicts of this kind can be eliminated without necessarily sacrificing either of the two objectives of maintaining internal financial stability and restoring external balance. In debates over the German problem, however, the main issue has not been whether a solution was possible but whether achievement of a solution necessitated changes in German policy. The official German view has tended to be that economic conditions and tendencies inside Germany will eventually solve the external problems more or less automatically. These conditions and tendencies include such factors as the acute labor scarcity (which may itself remain chronic from now on), the rate of increase in wages in recent years, and the "rising expectations" of the population. The German view has been that the increased demands on resources resulting from these factors would tend to eliminate the external surplus. Many outside observers, on the other hand, have stressed the fact that German officials have for many years been citing various special considerations—including some of those just mentioned—as evidence that the German external position was about to change, although in fact the large external surplus always continued. The new German program which has been mentioned reflects official German recognition that some positive action to curtail the surplus now appears to be necessary.

On the question posed above, as to whether in situations of chronic balance-of-payments surplus there are any forces compelling action to eliminate the surplus, it seems obvious that if there are any such forces, they are not very powerful. Because a balance-of-payments surplus is inflationary, it might seem that a country having such a surplus and wishing to resist inflation would have a strong incentive to eliminate or at least to reduce the external surplus. However, its desire to resist inflation is general and has no necessary connection with the source or sources of the inflation. If the policy measures

chosen are also general, they will tend—as in the German case—to perpetuate the external surplus.

We have seen that much of the postwar European experience with the discipline of the balance of payments related mainly to the re-establishment of an effective discipline operative against chronic balance-of-payments deficits. We have also seen that for some years now a discipline of that kind has been in existence and seems to have been working. On the surplus side, however, it is much less certain that an effective balance-of-payments "discipline" exists. There is clearly a question whether a discipline effective against chronic deficits can function properly unless tendencies toward chronic surplus can be held in better check than has been the case in recent years.

MONETARY STABILIZATION IN LATIN AMERICA

ROBERTO T. ALEMANN
Argentine Embassy, Washington, D.C.

IN LATIN AMERICA THE discipline imposed by the balance of payments is of peculiar significance because of several factors. In the first place, foreign trade is large in relation to GNP; there is a high propensity to import, and a relatively high proportion of budgetary revenues is drawn from export and import taxes. In addition, exports tend to be concentrated, often to the point where one or two commodities account for more than 70 per cent of the total. In all these countries, with only a few exceptions, there is a low rate of savings, which involve a consequent dependence on foreign capital, both private and public, for economic growth.

Under these conditions the acquisition of adequate reserves of gold and foreign currencies is the first prerequisite of proper monetary and fiscal management. The acquisition and maintenance of these reserves, however, although generally recognized as necessary, are often difficult because of the adverse and unforeseeable results of sharp price movements in world commodity markets and because of the ebb and flow of investment funds resulting from the effects of monetary policies in capital-exporting countries. The normal balance-of-payments discipline, therefore, may mean for Latin-American countries expansions and contractions in their economies in response to forces originating abroad and completely beyond the control of the local monetary authorities.

In the past, before the development of local industries, there was little need for autonomous monetary policies to counteract the effect of these fluctuations. In those days contractions of demand arising from balance-of-payments adjustments resulted only in a decline in imports, mainly of consumer goods, which could easily be postponed until exports revived or a renewed inflow of foreign investment provided the means for payment abroad. This is clearly no longer the case today, when economic development, particularly the establishment of manufacturing industries, is the objective of economic policies throughout Latin America. Industrial development poses new problems for the monetary authorities. In a sense, it acts as a built-in economic stabilizer, helping to maintain the level of domestic activity

in the face of declining incomes in the export sector. At the same time, it introduces a certain rigidity into the economy, as contractions in industrial production and employment become quite intolerable, especially if they approach the point where industries have to close down because of the lack of raw materials or other imported goods. In this case either exchange restrictions are imposed or additional balance-of-payments assistance must be sought.

During the last two decades the only choice available to the monetary authorities in Latin America has been between these alternatives of imposing exchange restrictions or seeking additional balance-of-payments assistance, as no country has been prepared to abandon industrial development, once it was under way. Especially in the early part of the period under discussion, the monetary and trade controls used in most of the major developed countries exerted a strong demonstration effect on policy-makers in Latin America, and monetary techniques based on quite different economic data and behavior were applied in these countries in order to achieve greater autonomy in monetary management and thus to avoid the discipline of the balance of payments.

In most Latin-American countries where these techniques were applied, and particularly in South America, they resulted in inflation. Inflation can be technically defined as excess liquidity pushing prices upward. What really matters for the sake of understanding the Latin-American inflation of the last two decades is the factor underlying this excess liquidity. A monetary expansion resulting from higher export proceeds could also produce excess liquidity and stimulate price increases, as has happened many times during the history of Latin America. This kind of inflation can easily be controlled and generally does not disturb the economic picture for very long. But when governments try to use inflation as a means for economic development and deliberately inflate in order to create demand and employment or to provide cheap capital for industrial investment, as has happened in many Latin-American countries, then the economies concerned, strong and sound as they may have been before, enter a period of serious danger.

Deliberate inflation, as we may call it, disrupts most of the existing financial and fiscal institutions. Reserves are put under a severe strain and eventually vanish, while the international credit of the country is exhausted. Internally, monetary controls are eased, and the resulting excess liquidity leads to increasing pressure of demand for imports, to the need for more working capital, and to higher prices and wages. Worst of all, it creates ever rising expectations, which are impossible

to satisfy, however great the resources available. Sound budget management becomes impossible, especially if exchange controls and multiple exchange rates distort the normal pattern of budgetary income and expenditure.

A policy of deliberate inflation may bring about changes in the economy which would take much longer by normal means. But the price that a country eventually has to pay for this kind of monetary luxury is indeed very high. There always comes a time when people realize that the economic changes induced by deliberate inflation have failed to modify the basic structure of the economy and especially its dependence on foreign trade and investment. At this moment the discipline of the balance of payments, which had been abandoned for the sake of a supposedly autonomous monetary policy, again becomes a major issue. Depleted reserves and exhausted foreign credit are usually the end of the story. This is the point where monetary stabilization enters the picture.

After World War II, the major European countries, both east and west of the Iron Curtain, had a hangover of excess liquidity which caused persistent inflationary pressures. One after another, these countries sterilized their excess liquidity and regained monetary stability. For some countries the process was relatively short, and for others it took years to overcome the inflationary incubus, but almost all of them eventually succeeded in achieving the goal of monetary stability, thus building up their reserves and restoring favorable conditions for growth while at the same time maintaining a high level of employment. The discipline of the balance of payments, which had been sacrificed during the war and the early postwar years, was again a main factor in monetary and economic policy. It may be interesting to mention, by the way, that the eastern European countries, following the pattern set by the Soviet Union, also achieved monetary stability, although by means not compatible with Western standards. The restoration of external convertibility of the principal western European currencies at the end of 1958 was an important step toward the full acceptance of the discipline of balance of payments, which nowadays involves following sound monetary and fiscal policies and, in particular, the avoidance of recourse to central bank lending.

Stabilization, as was shown by the postwar European experience, is a continuing process. By adopting policies of monetary stabilization, governments and central banks again attach major importance to the discipline of the balance of payments. This is especially true in the open economies of Latin America, with their heavy dependence on foreign trade and investment. Here no stabilization policy could

be consistently formulated or executed without placing main emphasis on balance-of-payments considerations. A stabilization program usually aims at the absorption of excess liquidity during a short period of time; although it appears paradoxical, this process is linked with sharp price increases. Here again the difference from the adjustment process common in former years, under the monetary discipline of the gold standard, is evident. Since adjustment through reductions in prices and wages is not possible, stability has to be reached by letting prices find their own level. During this period, excess liquidity disappears, as monetary expansion does not keep pace with price increases. Credit expansion is strictly limited, new taxes are imposed, and tax collection is enforced; imports have to be reduced and exports stimulated; capital inflow must be favored. Above all, policies must be designed to bring about the restoration of confidence, both domestic and foreign, because only confidence will sustain stability.

Once monetary stability is achieved, or even shortly before the initial processes are complete, the maintenance of confidence becomes the principal consideration. Contrary to the situation prevailing under inflationary conditions, when people prefer to hold foreign currencies, a stabilization policy is aimed at achieving the re-establishment of confidence in the domestic currency. Under inflation, creditors tend to lend money only on a short-term basis and, if possible, with exchange guaranties; interest rates go up sharply, since they include a premium for the expected depreciation of the currency. Stabilization aims at a gradual stretching-out of credit terms and a reduction of interest rates to more normal levels. This can be achieved only over a period of time, as gradually more and more creditors become convinced that the risks of further depreciation are diminishing.

The same considerations apply to amortization terms. Borrowing is linked with the terms of amortization, and under inflation these terms become shorter and shorter. Under a stabilization program this trend is reversed, and there is a stretching-out in the period of amortization through borrowing on longer terms. Without confidence this aim is impossible to achieve.

During the transition period, when the stabilization policy faces its biggest difficulties, the monetary authorities have to follow a very firm line, even at the very real risk of alienating almost all important political groups. The main task of both the treasury and the central bank is to resist strong pressures from almost every sector of the community. This is the key to the rebuilding of confidence. Creditors will gradually change their views, but only if they feel convinced that the new line of stabilization will be pursued with resolution. They

must have a definite feeling that the political authorities are determined to follow the policy of monetary stabilization and that underlying this determination there is the ability to surmount the main obstacles arising in day-to-day political turmoil. Only through practical experience can this confidence be gained.

As may be concluded from these remarks, a stabilization process requires both firm political leadership and able handling of the difficult economic and monetary problems which arise every day. In western Europe the countries that have controlled inflation have always had this combination of firm political and able economic and monetary leadership. The same must apply in Latin America if stabilization is to be successful.

Wherever stabilization is the policy, the balance-of-payments discipline is re-established. This is invariably the case, no matter how developed an economy may be and no matter how it is organized. The recent devaluation of the ruble, for example, shows that even collectivist economies must practice, in one way or another, a minimum degree of balance-of-payments discipline.

The postwar financial history of Latin America provides clear examples of the consequences of policies which do not take into consideration, at least to a minimum degree, the discipline of the balance of payments. After World War II, Latin America held unprecedented amounts of gold and convertible currencies. Part of these holdings was eliminated by sharp increases in export prices of the principal trading partners; another part was used to buy equipment and machinery, thus fostering development; but another part—nobody can estimate the actual amount, but it was certainly substantial—was dissipated through the effects of deliberate inflation. Fifteen years later, the reserves were exhausted, and only now are sustained efforts under way to rebuild them.

In Latin America the discipline of the balance of payments is very closely linked with budgetary management. Most of these countries rely on the budget for capital expenditures in basic sectors of the economy. Capital markets are generally not organized, and, in any case, private savings are insufficient for sustained investment in these sectors, especially in transportation, communication, education, urbanization, housing, power, and certain key industries. Deficit spending looks like an easy way out when taxes are insufficient to meet both the needs of capital formation and the current expenses of the administration. If, at the same time, credit policies are also too easy, monetary expansion inevitably leads to pressure on the reserves.

When developing countries adopt a stabilization policy, they seek

at the same time different objectives, which may from time to time appear contradictory. On the one hand, monetary stabilization requires the curtailment of current expenditures, credit restriction, more and better taxation, and the postponement of certain investments; and, on the other hand, new investment has to be attracted, and short-term and medium-term borrowing avoided, in order to provide long-term financing for those undertakings requiring it.

Monetary stabilization in Latin America is much more far-reaching than in industrialized countries like those of western Europe. Many different variables have to be put permanently in balance, and often new institutions have to be created, even though people may lack the skill and experience necessary to manage them.

Conditions differ so much from country to country in Latin America that it seems almost impossible to generalize. Although the process of controlling inflation has some features which are common to all countries, the emphasis as well as the timing may be very different from one country to the next. In particular, there are cases where the possibility of expanding exports is very limited on account of the conditions prevailing in world markets and reliance on a single export commodity may make this task almost impossible, since the diversification of exports requires heavy new investment and several years of sustained and co-ordinated effort. This raises especially serious problems in Latin America because devaluation, which is usually the starting point of a stabilization program, does not in these circumstances have the short-term effect of stimulating exports that may be expected in an industrial economy. The elasticities of supply and demand are generally lower for primary commodities than for manufactured goods. These difficulties in attaining higher export proceeds, which is one of the main objectives of stabilization, must be taken into account in appraising a stabilization program in Latin America.

Other substantial differences among Latin-American countries are the degree of literacy of their peoples, the political tradition and stability, the extent of the monetary economy, the banking and tax systems, the capital market, etc. The success or failure of a stabilization program is basically dependent on whether political leadership is able to combine in appropriate timing the very different variables of the economic and monetary equations and to accept an effective discipline from the balance of payments.

Argentina is perhaps one of the countries in Latin America where conditions are fairly close to those prevailing in some of the western European countries which have also undergone stabilization proc-

esses. The problem existing in Argentina two years ago was a clear case of excess liquidity and of substantial distortions in budgetary policy. The government ran a large deficit, and credit expansion was at a high level; the reserves were exhausted, and heavy external public indebtedness burdened the future balance of payments; productivity was down, the principal export industries lacked incentives, and investment in key sectors had been neglected.

The starting point of the stabilization program at the beginning of 1959 was an exchange reform. Multiple exchange rates were replaced by a single freely fluctuating rate, which stabilized itself after six months of sharp oscillations and has remained steady ever since. Exchange controls were eliminated after having existed for almost three decades. A free and convertible currency was created only a few days after the western European countries re-established the external convertibility of their currencies. Since then the only remaining limitation to complete convertibility has been the maintenance of bilateral clearing accounts for transactions with some European and neighboring countries; all these agreements will eventually be canceled. Import and export licensing has been abolished, as well as quotas and other quantitative restrictions on foreign trade.

With depleted gross reserves amounting to only $130 million, including clearing balances, equivalent to no more than one month's imports, Argentina needed transitional assistance from abroad to support the stabilization program. A package deal with the IMF, the U.S. Treasury, the Eximbank, the DLF, and a group of New York banks provided this assistance for the first year of stabilization. For 1960, the IMF, the U.S. Treasury, the New York banks, and certain western European commercial banks supported the stabilization effort with additional financial assistance. In all, credits for over $500 million were obtained.

As confidence in the Argentine peso was restored, capital began to flow into the economy. Fixed investments and working capital, a reflux of flight money, and different kinds of short-term funds and credits to Argentine importers sustained the exchange position. After two years the gross reserves of the central bank had risen to $700 million, the highest in Latin America. As this reserve level seems to be adequate, no further stabilization credits are now being sought. It is intended, however, to alleviate the heavy burden of external public indebtedness by stretching out several short-term commitments and borrowing on a long-term basis.

The initial internal impact of the stabilization program was read-

ily absorbed after sharp price increases took place during the first six months of the program. The rate of increase of prices slowed down thereafter, and price stability was reached in mid-1960.

The elimination of multiple exchange rates meant the abolition of several hidden subsidies; after this reform it was possible to bring the budget under control again, and the large deficit was reduced, mainly through the imposition of new taxes and the enforcement of tax collections. A surplus on ordinary budget account was achieved after one year; this, however, was still insufficient to compensate for the heavy losses incurred by the state enterprises, particularly the railroads and urban transportation systems.

Exports picked up, although very slightly. Imports were held down during the first year of the program by means of heavy surcharges and advance deposit requirements, both of which acted as import deterrents. After a year these monetary measures were relaxed; the surcharges remaining fulfil either fiscal or protective objectives. A tariff reform is in progress which will eventually complete the exchange reform.

Industrial production was severely hit by the basic changes introduced in the first few months of stabilization. Sales in many industries, especially those producing certain consumer goods, fell, although other industries, particularly in the field of investment goods, expanded rapidly. In mid-1960, industrial production picked up again, and with the large investment, both domestic and foreign, which has been made both in established and new areas, there are clear indications that industrial production will show a sizable advance in the near future.

The most significant increase in production was in the petroleum industry. Because of heavy investment in former years, as well as new investment by private companies, petroleum production doubled in two years and is now approaching the point of self-sufficiency, thus eliminating the burden on the balance of payments, which in the past absorbed as much as 25 per cent of total export proceeds.

With stable prices and a stable exchange rate, long-range planning is again possible. In several basic sectors studies are being conducted in order to develop a ten-year expansion program. This is the case in the power and highway fields, where preliminary studies have been completed, and in railroads, steel, and petroleum, where this kind of sound programing is in the making. In addition, price stability and the reactivation of the market mechanism permit the rational calculation of profit and loss and provide an additional

spur to more efficient production. Thus monetary discipline helps directly to increase productivity and to promote economic development.

Many difficult problems still await solution, some of them of a structural nature, as, for instance, the question of whether the proportion of resources absorbed by the government is compatible with a rapid expansion of the economy. Nevertheless, the main task of the stabilization program has now been achieved; calculation in economic terms is again possible. Open markets permit the price mechanism to operate again, and both the business community and the monetary authorities are now in a position to calculate in economic terms. An essential part of this picture is the discipline of the balance of payments. After such a long period of hectic inflation, people are now well aware of this discipline, which was not the case under a controlled economy, separated from the rest of the world by a complicated wall of exchange restrictions.

One very important lesson can be learned from the Argentine experience of stabilization that is valid for all countries that have undergone a period of uncontrolled inflation. Once the economy has been started on the path toward stabilization, no government can again initiate a deliberate inflation. People have become too aware of the meaning of inflation and would react immediately. The period of grace, on which any government can count when it embarks on a policy of deliberate inflation after long years of stability, does not exist any more. Governments may be more or less successful in containing inflationary pressures during the stabilization process, but they just cannot start again. Confidence would vanish overnight, internal and external credit would be quickly disrupted, and the reserves would run out very rapidly.

This is especially true when development is in progress with a stable price level and exchange rate. Here lies the weak point of stabilization programs in Latin America: so long as they are successful in combining monetary stability with economic development, people will be prepared to go along with the short-term sacrifices necessarily involved in any program. But if stability means recession and no signs of real recovery can be shown, then the program is bound to fail.

UNITED STATES EXPERIENCE

FRANK A. SOUTHARD, JR.
International Monetary Fund

IF THERE IS a discipline arising out of developments in the balance of payments of a country, it should manifest itself by some measurable repercussions on economic and financial developments within the country. In other words, the balance of payments is considered as "disciplining" the domestic economy. This is a permissible way of looking at the matter, and it is adopted for the purposes of this paper. However, it may be observed that there is another side to the coin; that is, developments in the domestic economy could be said to "discipline" the balance of payments.

It may be inquired whether the disciplining effects of the balance of payments are openly recognized by policy-makers, such as central bankers and treasury officials, or whether they make themselves felt more indirectly through a relatively automatic mechanism of adjustment. This question would probably not be relevant to, say, the United Kingdom or western European countries, where the balance of payments has for decades been a very important datum in economic and financial policy. But in the history of the United States, chiefly because of the unimportance of balance-of-payments factors relative to total factors operating in the economy, it is much less evident that financial officials have been aware of a discipline imposed by the balance of payments.

Lines of economic policy or action or the course of economic and financial events in a country may be conditioned or modified by balance-of-payments necessities. The level of general demand and the level of liquidity may be importantly influenced by developments in the balance of payments. The main ingredients of monetary policy, such as reserve requirements, rediscount rates, and open-market operations, may have to take such developments into account. Wage increases may or may not need to be resisted, depending on the state of the balance of payments. Commercial policy may need to be responsive to balance-of-payments trends. As an example, the slogan of "trade, not aid" coined by the British government during the chancellorship of Mr. Butler was an effort to dramatize the necessity for creditor countries to find ways of encouraging imports

so as to ease the balance-of-payments situations of deficit countries. Exchange policy is, of course, powerfully affected by balance-of-payments considerations. For example, convertibility at fixed official rates held close to a declared par value may impose a balance-of-payments discipline more sharply than would a fluctuating rate, although the proponents of fixed and of fluctuating rates would probably be prepared to debate this question at length.

The so-called classical gold-standard mechanism of adjustment typifies in sharpest relief the way in which the balance of payments imposes its discipline, although researchers have turned up few cases in relatively modern times which reveal the operations of that mechanism in its pure form. The so-called rules of the gold-standard game required that the level and cost of credit should respond quickly to changes in gold reserves, these having resulted from deficits or surpluses in the balance of payments. Simultaneously (and only in part because of changes in credit), there would be changes in total demand and prices which would be reflected in adjusting movements in exports and imports. The end result—and gold-standard theory posits that it will be achieved without undue delay—is a new equilibrium in the balance of payments induced by a new set of economic and financial relationships between the country in question and the rest of the world. The relative degree of inflation or deflation and the relative changes in total economic activity would, of course, reflect the way in which the balance of payments had imposed its discipline.

I. United States Historical Experience

There is a fertile field for research in the balance of payments of the United States in the last half of the nineteenth and the first 40 years of the twentieth century. The facts of our balance of payments during those years have been fairly well established. But relatively little has been done by way of systematic and intensive research into the way in which the domestic economy and the balance of payments reacted on each other. That is, we know relatively little about the way in which the mechanism of adjustment of the balance of payments of the United States operated during that period of almost 100 years.

Our boom-and-bust cycles of 1850–1907 no doubt had their balance-of-payments repercussions, especially in the field of capital movements. But it is unclear to what extent a balance-of-payments discipline was exerted. Except for the Civil War period and up to

the resumption of specie payments in 1879, the United States was on a gold standard for most of those decades, and the gold points were operating in the traditional way. However, we lacked any effective centralized banking system and had no central bank at all. Gold reserves were scattered in commercial banks, and private holdings of gold were substantial. The country was rapidly growing, and it was in a debtor position, in that foreign capital entered in large amounts. There were virtually no policy-makers in the financial field, and it is doubtful if anyone was aware of any disciplining effect of the balance of payments up to World War I. In one way or another, the gold-standard mechanism of adjustment presumably operated during most of the period. But F. W. Taussig, after examining developments until 1900 in his *International Trade,* decided that it remained uncertain whether the process of adjustment took place in the precise manner performed by gold-standard theory; nor was he able to be any more certain about the way in which the mechanism of adjustment had operated in the next 14 years up to World War I.

The years from the end of World War I to the beginning of the great depression are especially intriguing. Lester Chandler's biography of Benjamin Strong throws useful light on that decade. While Strong was very much concerned with international developments and especially the problem of restoring and maintaining the gold standard in the United Kingdom and western Europe after World I, the United States was in no clear and demonstrable way subjected to any powerful discipline by developments in the balance of payments.

On more than one occasion during the years 1920–29, the Federal Reserve System deliberately took steps to sterilize some portion of the gold reserve by leaving gold abroad (which under then-existing law kept it outside of the United States gold reserves) or by pushing gold coin and gold certificates into public hands. Federal Reserve authorities were fully aware that interest-rate differentials between New York, London, and western European cities had an effect on movements of funds, with consequent repercussions on the balance of payments and on exchange rates. The easy-money policies of 1924 and, more clearly, of 1927 were importantly, but not solely, influenced by the objective of easing the strain on sterling and other currencies, notwithstanding the other objective of damping off expansionary tendencies in the United States. But it does not appear that balance-of-payments developments in this period exerted any strong disciplinary effects on the United States economy. Except for

the considerations relating to European stabilization, the United States economy went its booming way, sustained by large gold reserves and apparently without feeling any important pressures from the balance-of-payments side.

However, here again there is a fertile field for research. We need to know a great deal more about the mechanisms that were operating in and through the balance of payments in the years 1920–30. The United States was on a gold-coin standard during the whole of that decade, and in the last six years all the other leading currencies were also on at least a gold-bullion standard. But our own economy seems to have been relatively insensitive to international influences.

The next decade is equally interesting and equally in need of careful study. The devaluation of the dollar in 1933–34 may have been justified by balance-of-payments considerations—that is, there may have been some overvaluation of the dollar resulting from the devaluation of sterling and other currencies. But the action was taken before there was any clear evidence of overvaluation and is probably more adequately to be explained on other grounds. The United States was in the middle of a severe depression, and ways were being sought to soften or reverse deflationary pressures. Raising the price of gold was one effort, even though, as events quite clearly demonstrated, the stimulating effects were relatively mild in relation to the forces of stagnation which still continued to govern the United States economy. To some extent the awkward process by which the devaluation was achieved represented a conscious effort to break away from the discipline of the balance of payments. Jerome Frank's discussion of the advantages of a closed economy, in his book *Save America First*, is an echo of some then-prevalent wistful thinking of this sort. The main conclusion which may be drawn from the events of this inadequately studied decade is that the United States economy, operating far below capacity and engaged in a more or less continuous effort at pump-priming, was very largely free from any disciplinary effects arising out of the balance of payments, beginning with the re-establishment of a new par value for the dollar in 1934.

II. Postwar Experience

What makes the last 15 years unique is that the United States has been every much preoccupied with balance-of-payments problems, and, for virtually the first time in our history, United States domestic and international financial and economic policies have been

much influenced by developments arising out of the balance of payments. Even so, however, until very recently the balance of payments was in no conscious sense imposing a discipline upon the United States; and it is doubtful whether the mechanism of adjustment was having any disciplinary effect.

The years 1945–57 comprised the period of the so-called "structural surplus" in the United States balance of payments. Many people concluded that the United States had a stubborn and persistent competitive superiority over the rest of the world, reflected in a strong export surplus which foreign countries in the aggregate were not going to be able to overcome. The implication of this view, although generally this was overlooked even by economists, was that there was no mechanism of adjustment which could be relied on to operate in the direction of equilibrium in the balance of payments of the United States and of the other leading countries.

It is perhaps not surprising that this state of affairs should have developed and that economists and others should have drawn those conclusions about it. Following the war, the economy of the United States was characterized by an undamaged productive machinery, the dollar was fully convertible, there was a sellers' market throughout the world for both consumers' and capital goods of the sort which the United States produced in abundance, and the United States capital market was sufficiently supplied with funds—both public and private—to provide large amounts for the use of the rest of the world. Exchange controls which were aimed particularly at the United States, as well as price controls and other such measures, were common practically everywhere else in the world, and, even if there had been no other reasons why the mechanism of adjustment was operating sluggishly, these controls provided a reason. In fact, however, there were ample additional reasons why the United States balance of payments continued to be in surplus during the years 1945–49 and why the over-all deficit which began to emerge in 1950 attracted little attention and had little effect. The United States had very large gold reserves and was running a very strong current-account surplus. Our gold reserves were $20 billion in 1945 and reached a peak of $24.6 billion in 1949. Our current-account surplus on goods and services averaged almost $8 billion in the years 1946–49. The ERP and other measures were at the same time a reflection of efforts to offset the big current-account surplus and a reason why the surplus could continue. On the domestic side, no aspect of economic and financial policy could be considered as influenced by

balance-of-payments considerations, whether one looks at monetary policy, fiscal policy, or wage policy.

During the eight years 1950–57 the United States, as is commonly known, ran an over-all deficit in every year except the last; the deficit averaged about $1.3 billion per year and was characterized by some loss of gold and by a steady buildup in foreign liquid dollar assets in the United States. Yet this persistent over-all deficit attracted little attention other than occasional expressions of satisfaction that the reduction in our excessively large gold reserves and the buildup of foreign short-term dollar holdings were improving the reserve positions of war-torn countries and paving the way for an ultimate move to general convertibility of currencies. It might have been concluded that the deficit was an evidence of the growing competitive strength of the industrial countries. But the United States continued to behave like a country convinced that it had a structural surplus, and most or all of the reasons why the mechanism of adjustment was operating sluggishly continued to be effective.

If by the "discipline of the balance of payments" we mean that a continuing deficit or a continuing surplus has a powerful effect on policy and trends in the financial and economic affairs of a country, it has to be concluded that there is little evidence of discipline up through 1957. This does not mean that forces of adjustment were completely inoperative. What it does mean is that they operated sluggishly and by indirection. The reasons for this are as follows:

a) During the period through 1957, gold losses were relatively small, and the United States was making long-term loans or grants and borrowing short term. That is, the principal offset to the outflow of public and private long-term capital (including grants) was the large buildup in foreign liquid dollar holdings. There was thus achieved what was, for the time being, a tolerable equilibrium in the balance of payments, and it seems unlikely that there was any scope for the mechanism of adjustment to operate.

b) There was no general and very little official alarm within the United States about the persistent over-all deficits in the balance of payments. There was therefore virtually no reason for any impact of "discipline" from the balance-of-payments side. There were no worries about the competitiveness of United States industries, and wage adjustments were undoubtedly arrived at without much concern about the consequences in terms of higher costs and prices. United States fiscal policy was unaffected by balance-of-payments considerations, and the same can be said of monetary policy. During

much of the period, exchange controls were still being actively applied by other countries, and this undoubtedly largely prevented interest-rate differentials from having their customary effect on money movements between the principal monetary centers.

c) On the whole, any disciplinary effects on the balance of payments were probably largely thrown onto the other countries during this period. The extensive devaluations of 1949 are one evidence of this. The several sterling crises are another, each accompanied by action in the fiscal and monetary field, as well as by efforts to restrain wage increases and to encourage exports. The exchange crisis of 1957 bore heavily on other countries as well, such as the Netherlands, Denmark, and Japan, and obliged them to take severe measures to restore balance-of-payments equilibrium. Since the United States was running an over-all deficit in these years, it could be argued that any balance-of-payments adjustments arising out of the actions of the other countries (most of which were also still discriminating against United States trade) ran in the wrong direction. That is, those countries also were striving to correct balance-of-payments deficits. However, this serves chiefly to illustrate that the United States was still considered to be a surplus, rather than a deficit, country and, in fact, in 1957 was in over-all surplus. Therefore, other countries having balance-of-payments difficulties expected to improve their positions vis-à-vis the United States as an important element in restoring equilibrium in their own balances of payments.

During the three years 1958–60 the over-all deficit in the balance of payments of the United States very sharply increased. The facts are by now well known. Imports changed very little, increasing by something more than $1 billion in the second and third years over the first. Exports at $16.2 billion in 1958 and 1959 were more than $1 billion less than 1956 and $3 billion less than 1957; in 1960 they increased sharply. Other items changed relatively little, except for some decline in private long-term capital outflow and a very sharp increase in the outflow of short-term capital during the last half of 1960. During these three years the United States ran a substantial surplus on current account in 1958 and 1960 and a slight deficit in 1959. But on capital account there was a large outflow of public and private long-term capital and, in 1960, also of short-term capital, leading to a large over-all deficit which in the three years totaled about $11 billion, represented by about $4.5 billion in gold exports and by an increase in foreign holdings of liquid dollar balances.

What can be said about the discipline of the balance of payments

during these three years in which, for the first time in our modern history, we have been confronted with an admitted balance-of-payments problem?

a) In our public and private policy and actions in the financial and economic fields we have been obliged to take account of the need to achieve a reasonable equilibrium in the balance of payments. The shift from deficit to surplus in the federal budget in fiscal 1959 as compared with fiscal 1958 was dictated by compelling considerations outside of the requirements of the balance of payments. However, both currently and in the near future, balance-of-payments considerations militate against fiscal deficits. It is not possible to measure the extent to which an awareness of the need to maintain a strong competitive position in foreign markets and to compete with foreign goods in the home markets has stiffened resistance to undue wage increases, but it seems reasonable to conclude that there has been some such effect. Finally, the government has taken a number of specific actions aimed at reducing the deficit in the balance of payments, including increased export insurance, greater efforts at trade promotion abroad, various economies in public expenditures overseas, tying of foreign aid to United States procurement, and so on.

b) In the field of monetary policy it cannot be said that, up to the present time, balance-of-payments considerations have had a marked effect. During the recent months of slack-off in business activity, our large, though declining, gold stock has provided a cushion which has permitted the monetary authorities to follow a policy keyed to domestic needs, even though the resulting interest-rate differentials have provoked a substantial outflow of short-term funds. However, both in monetary and in fiscal policy the "discipline" of the balance of payments may conflict with countercyclical requirements. As long as gold reserves are relatively large and there is an improving trend in the balance of payments, the conflict may be avoided. But sooner or later, if the balance-of-payments deficit continued to be serious, fiscal and monetary policy would have to take it into account. Effective countercyclical action should itself ultimately have a desirable balance-of-payments impact, and hence it will be both important and difficult to weigh immediate, as against more basic and longer-range, balance-of-payments considerations.

c) All economic theory relating to the balance of payments posits the existence of a mechanism of adjustment which operates with at least some degree of automaticity to restore equilibrium. Moreover, if devaluation is to be avoided, reasonable equilibrium in the balance

of payments must and will be achieved. The only question is *how* the mechanism of adjustment will operate and the extent to which it will need to be fortified by direct action. The direct action, in turn, can be limited to appropriate fiscal and monetary policies and to other actions to stimulate exports of goods and services, economy in overseas expenditures by the government, and tying of foreign aid to procurement in the United States. Or it can include more drastic and undesirable restrictions on capital movements or even on imports. However, there are some peculiarities of the United States situation which may reduce the effectiveness of the mechanism of adjustment and therefore lead to a greater degree of direct action than would be the case in some other countries.

1. As was indicated earlier, the relatively small percentage relationship between balance-of-payments magnitudes and GNP in the United States probably gives rise to sluggishness in the responsiveness of the American economy to the impact of even large deficits or surpluses in the balance of payments. Income changes are the principal element in the mechanism of adjustment, and it must be presumed that those changes will have relatively small effect on the United States, where, for example, total imports or exports are only about 5 per cent of GNP.

2. The United States has been adding steadily to its foreign investments and by now is receiving a large and growing net income from them and, under ordinary circumstances, would be what used to be called a "mature" creditor. That is, receipts from past investments per annum would exceed new investments, and there would be a strong tendency, in the absence of offsetting factors, for the current account to move into deficit. However, conditions are not ordinary; the United States is compelled by important considerations of international policy to push out public funds to underdeveloped countries, in addition to the outflow of private long-term capital, which moves in response to economic incentives. This subjects the mechanism of adjustment to an added strain, because it is necessary to achieve and maintain a substantial surplus on current account, notwithstanding the more normal pressures which would lead to a deficit. Fiscal policy may have a special role to assure that the public funds which are made available to foreign (chiefly underdeveloped) countries are pulled out of the United States income stream so as to fortify the mechanism of adjustment in the balance of payments.

3. A suggestion made earlier may also be relevant here. Given

a relatively sluggish mechanism of adjustment in the United States, the greater responsiveness of the balance of payments of other industrial countries is doubly important. To use terms which have become familiar in recent years, these countries must be "good creditors," with all that this means in terms of the complementary effects of their fiscal, credit, and commercial policies and the aid they extend to underdeveloped countries.

This paper has been confined to the scope imposed by its title and has not attempted to make a critical examination of the mechanism of adjustment in the United States balance of payments. The sharp increase in United States exports in 1960 may turn out to be an encouraging evidence that the mechanism works fairly effectively —the events of 1961–62 will be the test. What we can be sure of is that the balance of payments *does* impose a discipline on the United States in the sense that we must and will, in one way or another, achieve a reasonable equilibrium.

COMMENTS ON "THE BALANCE OF PAYMENTS," AND A PROPOSAL TO REDUCE THE PRICE OF GOLD

FRITZ MACHLUP
Princeton University

IN THIS PAPER I shall first discuss some semantical and "institutional" aspects of "the discipline of the balance of payments," and then I shall proceed to some ideas of my own concerning the present balance-of-payments situation of the United States.

Three phrases are in use concerning the effects which movements in the balance of payments may have on the domestic monetary situation: "the balance-of-payments mechanism," "the rules of the game," and "the discipline of the balance of payments." I have noticed a tendency to use the three phrases interchangeably for the same notion, and I deplore this as a waste of words. To use different words for the same thing and have no words for other things is a wasteful allocation of linguistic resources.

Each of the three phrases can have its own meaning. The balance-of-payments *mechanism* should refer to some automatic effects, not to policy decisions. After all, this is what mechanism means: it works "mechanically," not through discretion. The automatic effects in question are upon bank reserves, an inflow of gold or foreign exchange causing bank reserves to fall. This mechanism works even in the absence of a central bank if private banks hold gold and foreign-exchange reserves. The *rules* of the gold-standard game refer to norms for central-bank policies. To abide by the rules is to abstain from policies of offsetting, and to pursue policies of reinforcing, the effects of the balance-of-payments mechanism. A central bank obeys the rules of the game if it expands credit and buys securities when gold and foreign exchange are received and if it contracts credit and sells securities when gold and foreign reserves are lost. Now it would not be unreasonable to use the word *discipline* for the exactitude with which the rules of the game are obeyed; but it is preferable to use it instead for the stern austerity with which a nation practices anti-inflationary or deflationary policies when a balance-of-payments deficit has arisen or threatens to arise.

Thus, while the rules of the game may prescribe expansionary or contractionary policies, as the case may be, I would use the term

"discipline" for only the latter. This seems sensible to me in analogy to the conduct of a private householder in spending or guarding his cash reserve. If his cash reserve is high and rising, it does not take any "discipline" to spend it. Nor, incidentally, does it take any discipline not to spend when the cash reserve is exhausted. It does take discipline to refrain from spending when the reserve is still ample but threatens to decline if a policy of ease is pursued. The "discipline" of the balance of payments, then, designates the cautious abstinence from credit expansion on the part of a monetary authority which still has plenty of reserves but has been alerted by a balance-of-payments deficit to the dangers ordinarily associated with a policy of monetary ease.

I beg your pardon if it seems pretentious for me to act as arbiter for the use of words. I am not attempting to impose my glossary upon anybody, but I would be glad if my terminological "discipline" or, if you prefer, "rules" for the economy of words were to meet with your approval.

May I now follow my well-known proclivities toward institutional economics and warn that one and the same theoretical model may not be suitable for different institutional arrangements. The three concepts which I have just reviewed cannot be applied to all countries at all times. When Dr. Southard looked for some evidence of the "discipline" of the balance of payments in the monetary history of the United States, he might have made it clear that in the nineteenth century there were no appointed policymakers making decisions that could be regarded as either showing or lacking "discipline." We must separate in our own thinking the times (1) before the United States had a central-banking system, (2) after the Federal Reserve System was established but before the dollar had become a key currency, and (3) after the dollar had become reserve money for foreign banks and central banks.

In the first of these periods one can, of course, find evidence of the balance-of-payments *mechanism* at work, when private banks gained and lost gold and sterling balances. But there was no one who was supposed to obey the *rules* of the game, and no monetary authority which could feel, and make felt, the *discipline* of the balance-of-payments. In the second period all three concepts are applicable, but what makes it so very different from the third period is the meaning of a balance-of-payments "deficit." If this is to refer to the state of an accounting balance in which the items on current account, and the autonomous capital items show an excess of payments over receipts, so that the gold stock declines and/or short-term liabilities

to foreigners increase, it makes a difference whether or not foreign countries hold (and desire to hold more) dollar balances as part of their foreign reserves.

If foreign countries want to build up their foreign reserves by keeping higher dollar balances in New York, only a deficit of the United States balance of payments (in the sense defined) can accommodate them. If this deficit is not large enough to meet the demand for dollar balances (the unsatisfied demand indicated, for example, by exchange restrictions on the part of the foreign authorities), some people will speak of this—to the confusion of many—as a dollar shortage or a "surplus" in the United States balance of payments (in a different sense, of course). If foreign countries are satisfied with the size of their foreign reserves but decide to switch from dollar holdings to gold holdings, the United States will suffer a reduction in its gold stock and an equal reduction in its short-term liabilities to foreigners, a movement which, however, will not be regarded as a "deficit" (in the sense defined). Of course, one may quickly alter the definition and make the ups and downs of short-term balances part of the capital balance. But then you are in semantic trouble when there is, on balance, a deficit on current account plus long-term capital account, with consequent accumulations of foreign-held dollar balances. You cannot, without the danger of an even worse confusion than there is, give the name "deficit" in some instances to an *increase* in such balances and in other instances to a *decrease* in such balances. Of course, I cannot keep you from doing so if you insist. There are those, I am afraid, who speak of a deficit first when the foreigners *acquire* dollar balances and then again when they *withdraw* them.

What a terrible semantic mess! It gets even worse when one starts using the words "equilibrium" and "disequilibrium" for this sort of thing. I shall carefully avoid using these terms to characterize any concrete situation. For we should never forget that these are purely mental constructs without empirical counterparts; one and the same situation is an equilibrium or a disequilibrium in the analyst's mind, depending on what variables he happens to include in his model and what values he gives them in his imagination. But, since no one will hold that the present state of the United States balance-of-payments is one that can last forever or even for four or five years, we must use some word to express this diagnosis. Hence, I shall call it an "imbalance in our international accounts." I am now going to discuss proposals to deal with this imbalance and to make a proposal of my own.

Several economists have proposed that the dollar price of gold be increased. Some of them think that this would help alleviate or remedy the present imbalance in the international accounts of the United States. This implies that the price of gold would not be raised equally by other financially important countries. Others think that the price of gold should be increased everywhere and that this would supply more international liquidity, a desirable result if international trade is to continue growing in the future.

I submit that these objectives would not be served well by increases in the price of gold and, indeed, that the proposals have contributed to the present imbalance. Expectations that the dollar might be devalued inevitably result in mass decisions to switch from dollar balances into gold holdings, or at least in decisions not to build up further dollar balances. In raising and reinforcing these expectations, the proposals have reduced the dollar liquidity preference and increased the gold liquidity preference of the world; have therefore reduced the demand for and increased the supply of dollars in the foreign-exchange markets and increased the demand for and reduced the supply of gold in the gold markets; and all this is reducing the international liquidity reserves in the process.

I cannot blame the gold buyers and gold hoarders for acting on these expectations. The historical experience of the world has been that gold hoarders usually gained in the long run, because governments and central banks have, on thousands of occasions, increased the gold price in terms of national currencies but have almost never, if ever, reduced the official gold parity. The one-way expectation—that the price of gold can go up but cannot go down—is a destabilizing factor in the international economy. Years ago I believed, as many had taught us, that this one-way expectation, by making gold a safer store of value than money, worked on the whole as a stabilizing influence, in that it held monetary authorities to greater discipline and caution. If this was true once, it no longer is. The knowledge that gold would be demanded from the monetary authorities has not, I believe, in the last fifty years kept many governments or central banks from increasing the domestic stock of money if such an expansion was considered desirable or necessary to obtain other policy objectives. If the faith in gold does not act as an effective brake upon inflationary policies, what other purpose does it serve?

If the proposal I am going to make should be regarded as injudicious, or even crazy, it may harm my reputation as a political economist, but I believe it cannot harm our national interests. On the contrary, I believe that the mere discussion of my proposal may

prove helpful from several points of view—e.g., as a damper on gold speculation—even if it should not be accepted as the best of all possible policies. Here, then, I beg to propose that the dollar price of gold be reduced in two, three, or more instalments. This would reverse historical experience, and those who persist in holding gold would lose money.

Before I offer explanations, let me make clear that the adoption of my proposal would presuppose negotiations, under the auspices of the International Monetary Fund, with foreign governments and central bankers, especially of the United Kingdom, France, Western Germany, and several others, and would require an act of the United States Congress, amending the Gold Reserve Act of 1934. Since I do not believe that a change in foreign-exchange rates is necessary to correct the present imbalance in our international accounts, I would assume that the British and French would reduce the price of gold in terms of sterling and francs at the same time and by the same percentage. I believe that the German mark may stand some realignment and that this could be accomplished in the least painful way by Germany's reducing the price of gold a little more than the rest of us. I assume that none of these foreign governments would want us to act unilaterally, since a reduction of the dollar price of gold without simultaneous reductions in London, Paris, and Frankfurt would imply depreciations of the sterling, the franc, and the mark in terms of dollars, which they surely would want to avoid.

As to timing and extent of the proposed reduction of the price of gold, I submit that there should be *ample advance notice* and only *moderate mark-downs*. For example, the first reduction might be by only 2 per cent, effective late in 1961 or early in 1962; the second reduction by another 2 or 3 per cent, one year after the first.[1] I do not think we should now decide to adopt a scheme of a continually dwindling value of gold—listen, ghost of Silvio Gesell—but we should leave open the possibility that further periodic reductions may be made later. (Incidentally, while advance notice of an increase in the price of gold would be foolish and harmful, advance notice of a decline is both useful and fair.)

Now let me offer my explanations. We have gone through a transition from dollar shortage to dollar glut while the sign of the balance of payments on current plus capital account remained the same.

1. In order to guard against the possibility that gold hoarders would sell their holdings just before the price reduction becomes effective and then repurchase at the reduced rates, it would be preferable to schedule the reductions at shorter intervals. For example, four reductions a year, of 1 per cent or three-fourths of 1 per cent each, would, with the trading costs involved, prevent hoarders from switching back and forth.

That is to say, we have had a balance-of-payments deficit in this sense in the very years when everybody cried his heart out over the dollar shortage. By means of this deficit we supplied between 1950 and 1955 a net amount of almost $10 billion, or over $1½ billion a year, for reserve accumulation by the rest of the world. Despite these annual "deficits," there were many economists speaking of a chronic "surplus" in the United States balance of payments. This was sensible only in that the net supply of dollars in the foreign markets was less than was wanted and demanded for reserve accumulations in these years. By dollar *shortage* one could have meant—although few writers did—that the foreign nations wanted more than the $1½ billion a year to build up their reserves. From 1958 to 1960 our annual deficit has been over $3½ billion, and this represents a dollar *abundance* because the foreign nations *do not want that much.* Indeed, the net supply of dollars has been so high this year [1960] partly because there have been so many supplying dollars in the process of switching from dollars into gold. Moreover, the reason for the demand for dollars not being greater lies in the unwillingness of many foreign individuals, firms, banks, and central banks to see their dollar balances grow when a devaluation of the dollar appears imminent to them. Thus the present imbalance is, to a large extent, the consequence of the expectation that the dollar price of gold will be increased. Now an expectation that it will be reduced instead can do much to remedy the present imbalance.

The point, in short, is this: the balance-of-payments problems of a country whose short-term liabilities are the foreign reserves of other countries are different from the problems of most countries. For example, a given net supply of dollars on current and capital account constitutes a *shortage* when the demand for dollar reserves is high but an *excess supply* when the demand is low. The demand can be increased when holding dollars is made more desirable than holding gold, and this will be the case when a reduction in the dollar price of gold is expected.

Can we effectively determine the price of gold? If we reduce the price of gold from $35 an ounce to $34.30, will this stick—or will it be an ineffective gesture? It all depends on whether we are willing to sell any amount of gold that should be demanded at that price. If we sell without restriction and without batting an eye, the price will be fully effective—and people will stop buying gold from us. For there is no hoarders' demand for anything that he can obtain in practically unlimited quantities at a price which is sure to be lower after a while. (I am aware of the possibility that speculators will not be-

lieve our announced intentions. If we never hesitate to sell, they should learn that we really mean it.)

If the United States finds it proper, for some reason, to continue the present practice of selling gold only to central banks and treasuries, then we should arrange for some of these monetary authorities to keep the gold market always so well supplied that the price cannot rise, even for a few minutes, above our gold export point. In my opinion, the $40 episode should have been avoided, and even the $36 price in London has been bad management on our part.

Incidentally, the 25 per cent gold certificate reserve requirement for our Federal Reserve banks should be abolished in any case, so that the whole world will know that our gold is for sale—all of it, if anybody wants it. Of course, under these circumstances nobody will want it. On the contrary, almost everybody will want to sell his gold. In a sense, it is too bad that we should again give good dollars, and possibly good resources, for gold which will be virtually useless to us; but *noblesse oblige*. We may reduce, but probably should not destroy, the value of gold, and hence we should be willing to peg the price of gold by buying what is offered at the prices we fix. And other responsible financial centers of the West should do likewise.

As soon as it is decided that the price of gold in dollars, pounds, sterling, francs, marks, etc., will be reduced, the offerings of gold will increase rapidly. The South Africans will want to sell all they can before the price reduction becomes effective. The same is true for Soviet Russia, which one can safely infer has been holding back for quite some time in the expectation of an increase in the gold price. (The proposals to increase it have got the hopes of the Russians and the South Africans up; they will be sorely disappointed, but I cannot get myself to weep tears over their disappointment.) Several central banks also will want to avoid a loss in their reserves and will, if a reduction of the gold price is announced, prefer to switch from gold into key currencies. Finally, there will be those who have switched from dollars into gold and will now switch back into dollars and other key currencies. It has been quite expensive to them to pay for storage and insurance and to forego interest on their gold holdings, but they do not mind as long as the gold price is expected to rise. But if it is to fall instead, every day of holding on to the gold would be foolish squandering. We do not know how many billion dollars worth of gold will appear from everywhere for sale to the monetary authorities, but it will be plenty if the proposal is adopted.

The effect upon interest rates can be quite significant. The rash of new sterling balances, dollar balances, mark balances, resulting

from gold sales to the monetary authorities is apt to mean such a rapid increase in the supply of liquid funds that—if I may assume neutral effects upon business expectations—short-term rates may be reduced to levels not seen in the last two years, and long-term rates too may come down from their lofty heights and send ailing government securities up to par. I suspect that these side effects of the reversal of the gold-price expectations would not be considered undesirable by most of us.

One last question: How would international liquidity reserves be affected in the long run? Triffin wants an international supercentral bank to provide more liquidity. My proposal is not incompatible with the Triffin plan; indeed, it meets one of his objectives, namely, to remove the destabilizing effects of recurring flights out of key-currency reserves into gold. The advocates of gold-price increases hold, quite correctly, that an increase in the gold price would add to the reserves, first, because given stocks of gold would represent more money and, second, because new gold production would be more profitable and would therefore provide larger flows of gold. What I propose avoids the windfall profits to Soviet Russia and South Africa but would provide larger liquidity reserves by getting gold out of the hoards. It would release gold from speculative reserves to transactions reserves. Expressed differently, an *increase* in the price of gold would increase the total supply of gold, though it might also increase the speculative demand for gold; a gradual *decrease* in the price of gold would reduce the demand for gold. As the demand for gold for speculative purposes is reduced, international liquidity reserves are created both by increasing the amounts of gold available for transactions reserves and by making dollar balances and other key-currency balances more acceptable as international reserves.

I do not advance my rather unorthodox proposal as a solution to all problems concerning the imbalance in the international accounts. While I regard my proposal as more than a "gadget" or "gimmick," I do not regard it as a substitute for sound monetary and financial policies in this or any other country.

DISCUSSION

WALTER J. SEDWITZ:* We have before us three excellent and highly thought-provoking papers on the discipline of the balance of payments as it may operate in western Europe, Latin America, and the United States. The subject is both timely and important, and it is gratifying that the authors have chosen a broad, realistic, and wholly empirical approach to the problem. Therefore, I shall confine my observations to certain fundamental conceptual aspects of the balance-of-payments discipline, which are not fully brought out in the papers, and to the over-all conclusions toward which the authors guide us.

Let us begin by looking at the concepts with which we are dealing. Mr. Southard speaks of the discipline of the balance of payments as "some measurable repercussions on economic and financial developments within the country" and as "exercising a powerful effect on policy." In a similar vein, Mr. Wood views the discipline as a "set of continuing policies, or a set of constraints on policy," while Mr. Alemann regards it in terms of the inexorable pressures that compel countries to adopt monetary-stabilization measures, once inflation has degenerated into a balance-of-payments crisis. Each of these definitions places the emphasis squarely on a discipline that expresses itself in the form of deliberate policy.

While I fully subscribe to this emphasis on the policy aspects of the discipline, I would even go one step further. The discipline we are discussing is highly discretionary, rather than automatic or semi-automatic as under the gold-standard rules. Therefore, it is a considerably less rigorous discipline than the stern connotation of the term would at first suggest. Before we can meaningfully discuss today's balance-of-payments discipline, we must fully recognize that it does not arise, fortunately, from the unrelenting action and interaction of the economic processes themselves but rather from the willingness and ability of public policy to exercise greater or lesser self-restraint, depending on the trends of the balance of payments and the causes of the imbalance. The real meaning of the balance-of-payments discipline, then, relates largely to the question of how far a country could or should deflate or inflate in order to maintain external balance at given exchange rates. Here we get into a highly

* Council on Foreign Relations.

subjective and rather complex area in which economics and politics merge. And it should be obvious that at a time when deficit countries are in recession and surplus countries at the crest of a boom, the "correct" balance-of-payments discipline suffers from certain limitations.

I should underline, however, that the discretionary aspect of the balance-of-payments discipline diminishes as external aid and credit facilities approach the point of depletion. Clearly, when that point is reached, the full rigor of the balance-of-payments discipline makes itself felt. Mr. Wood aptly calls this the "scraping-the-bottom" discipline, which may be no discipline at all. In this connection, I believe, it is worth making the distinction between the *punitive* discipline that manifests itself during an exchange crisis and the *preventive* discipline which must operate on a continuing basis. Mr. Alemann's analysis is directed more to the former than to the latter, partly perhaps because structural and institutional factors militate against effective preventive discipline in the less developed countries of Latin America. Nevertheless, if we are to put any stock at all in the balance-of-payments discipline, it must be the kind of continuing discipline that makes balance-of-payments considerations an important—though by no means always an overriding—consideration in economic policy.

We may pause briefly to consider the symmetry, or better the asymmetry, of the balance-of-payments discipline. Mr. Wood concedes that "on the surplus side . . . it is much less certain [than on the deficit side] that an effective balance-of-payments discipline exists," although he suggests that a "country in chronic balance-of-payments surplus obviously cannot go on piling up reserves forever, because the deficit countries will eventually rebel." I would submit that, if the surplus country alters its policies simply because the deficit countries "rebel," this could hardly be called discipline and would merely represent what Mr. Wood has called the "scraping-the-bottom" discipline that forces defensive measures by the deficit countries. On the other hand, a persistent creditor like Germany needs to be alert to the possibilities of retaliatory measures that might be taken and of the danger that the reluctance to follow the "proper" discipline might seriously interfere with foreign-policy objectives. That such considerations are beginning to influence German economic policy—somewhat belatedly—is increasingly evident, although the steps being taken are still rather cautious and less than enthusiastic.

With regard to the German surplus, Mr. Wood notes that the

"policies needed for internal balance and the policies needed for external balance are in conflict—or at least they appear to be in conflict—and priority has been given to the problem of internal balance." Mr. Wood refers here to the vicious circle into which German economic policy has fallen, namely, external surpluses leading to inflationary pressures and interest-rate increases, which in turn accentuate the surpluses. To elaborate further on this point, the conflict between the domestic and international objectives of German financial policy is somewhat spurious. If there has been a conflict, it has been a conflict between German monetary and German fiscal policy. There is considerable validity in the contention that if the German government budget, state and federal, had exerted a stronger anti-inflationary effect, the level of German interest rates could have been held lower than that actually prevailing throughout most of the past year. Consequently, much of the disruptive flow of short-term capital to Germany might have been avoided.

As to the discipline on the deficit side, I fully agree with Mr. Wood that, once the western European nations had decided to restore convertibility and multilateralism and the postwar recovery phase had come to an end, the balance-of-payments discipline again came into its own. The inauguration of the Common Market further underpinned this discipline. However, I am somewhat doubtful whether this discipline has not been carried a bit too far and whether it is really the unmixed blessing we like to think it is. Western Europe has had persistent balance-of-payments surpluses in almost every year since 1950. And, while a good case could be made in favor of the deficit discipline until 1957, on the grounds that western Europe needed to rebuild its international reserves in preparation for the plunge to convertibility, the case has become entirely unconvincing since then. In this connection we ought not to forget that Germany's surplus is merely the largest and the most dramatized but by no means the only one.

Having said all this, it is only fair to point out that a policy of inflation is not the answer to the problem. There is still a substantial margin for import liberalization without the need to open the floodgates of monetary expansion. Quite apart from this, however, western Europe's balance-of-payments surplus is not merely a matter of the trade balance. To a considerable extent it is a reflection of the inflow of short- and long-term capital and of troop and military expenditures by the United States. Hence the discipline that may be imposed by a balance-of-payments surplus is not simply one that calls for an over-all domestic expansion intended to raise imports

and reduce exports. Instead, the "new" discipline would seem to call for a more systematic co-ordination and synchronization of policy among the major financial centers, such as appears to be evolving already, so as to diminish disruptive capital flows and discourage dangerous bear movements against one or the other major currency.

Turning to Mr. Alemann's paper, his analysis leads us to the conclusion that there is scarcely any discipline imposed by external deficits, except for the crisis discipline that comes with monetary stabilization. By way of a footnote, I might add that the postwar experience of Latin America shows a rather quick response of the domestic economy to a surplus situation. This would suggest that, in contrast to western Europe, the asymmetry of the Latin-American discipline works the other way around. Export booms result in domestic expansion, while external deficits elicit only a sluggish response in the opposite direction, unless a full-blown exchange crisis is at hand. I might add that Mr. Alemann speaks of the textbook discipline under which the domestic economy adjusted readily and symmetrically to the ebb and flow of external trade as something of the past. I would not care to generalize that broadly. There are still several countries in Latin America, for example the Central American republics, where production for local consumption is small and money and capital markets rudimentary and where, as a result, the balance-of-payments discipline operates quite unrelentingly on the side of expansion and contraction, depending on export markets. However that may be, it is obvious that the adjustment of the Latin-American domestic economies to an export boom contributes little to the balance-of-payments equilibrium in the developed countries.

I am somewhat puzzled by Mr. Alemann's point that an export-induced inflation in Latin America "can easily be controlled and generally does not disturb the economic picture for very long." This statement is not borne out by the long postwar raw-materials boom, and it seems to conflict with his earlier point that the balance-of-payments discipline "may mean for the Latin-American countries expansions and contractions in their economies . . . *completely* beyond the control of the local monetary authorities" (my italics). I would submit that in countries in which currency makes up the bulk of the money supply, as is generally the case in underdeveloped countries, the rise in liquidity generated by an export boom is quite difficult to check, although the *multiple* credit expansion that results in the flow of export proceeds into bank deposits may be more limited.

Mr. Alemann's apparent conviction that an externally induced

inflation is easily controlled leads him to put the blame for monetary instability and balance-of-payments pressures on overambitious economic development programs. While I would fully agree with his emphasis on inflation-financed development projects, I do not believe that it is easy to segregate the inflationary impulse of an export boom and of domestic development expenditures. Many examples can be cited in Latin America where a sudden skyrocketing of export prices and a swelling of exchange reserves helped spark a domestic investment boom that resulted in a blast of inflation and exchange crises that brought the punitive discipline of austerity into play. Export booms may be a more important generator of inflation in Latin America than we may be willing to acknowledge. Thus it is often the inability or the reluctance of governments to exercise restraint during export booms that makes the balance-of-payments discipline such a stringent one, once the pendulum has swung in the opposite direction.

Mr. Alemann presents a very incisive analysis of the process of monetary stabilization through which, he suggests, the balance-of-payments discipline expresses itself in Latin America. I agree entirely with his emphasis that the success of monetary stabilization depends largely on the courage of governments to enact unpopular but nevertheless essential measures. As Napoleon supposedly once said, "the strategy of economic policy lies in its execution." I am somewhat doubtful, however, about Mr. Alemann's point that the stabilization process is linked, initially at least, with *sharp* price advances. It may be true that immediately after the program is launched the velocity of monetary circulation may still be subject to the public's inflationary psychology and thus partly offset the price-dampening effects of credit restrictions. It is also possible that devaluation, the ending of repressed inflation, and rigidities in the fiscal mechanism may continue to exert some upward pressure on prices after stabilization has begun. But if prices rise *sharply* and even persistently, this could only reflect the inadequacy of the stabilization measures themselves rather than some inevitable by-product of the retrenchment process. It may be noted in this connection that the stabilization programs of Chile, Bolivia, Paraguay, Spain, and France—to list but a few—were not initially accompanied by an acceleration of the pace of inflation.

One further point on the discipline of monetary stabilization. By virtue of a country's economic, political, or strategic importance, the rigors of the balance-of-payments discipline can be considerably eased or at least long postponed. Brazil, for example, has re-

peatedly employed the leverage of its political and economic position in the world in order to command emergency financial assistance from abroad whenever the thrust of inflation precipitated an exchange crisis. The availability of such financial aid has enabled Brazil to avoid subjecting itself to the kind of balance-of-payments discipline described in Mr. Alemann's paper. Undoubtedly there are also other countries whose particular position in the arena of world politics permits them to forego, at least for a while, some of the rigors of the balance-of-payments discipline. My purpose in making this point is not to pass judgment on the policies of any country but rather to underline that there are no hard-and-fast rules about the timing and the stringency of the discipline, particularly when political factors may be involved.

Turning to the case of the United States, Mr. Southard seems to be drawn to the conclusion that the balance of payments has never imposed a very strict discipline on domestic economic policy. Referring to the "boom-and-bust" cycles of 1850–1907, for example, he notes that it is "unclear to what extent a balance-of-payments discipline was exerted." If "balance-of-payments discipline" is here taken to mean a deliberate policy intended to achieve external equilibrium, then I would agree fully. If, on the other hand, it may also mean that external impulses were freely permitted to exert their full impact on the domestic economy, thereby facilitating balance-of-payments and adjustment, then the case is not so dubious as suggested by Mr. Southard. The very existence of the booms and busts during that period and the presumption that they were propagated from country to country through the balance-of-payments would suggest that, to some extent at least, the discipline of the gold standard was operative. During most of the present century, however, I would agree that there has been neither an "automatic" gold-standard discipline nor much of the discretionary discipline associated with paper standards. One reason, obviously, is that, until recently, the United States did not have to cope with any serious deficits. The absence of the need for a discipline to deal with a deficit, however, should not obscure the fact that during the immediate postwar period the United States, in pursuing policies intended to reduce the surpluses, was, in effect, exercising a "discipline" that expressed itself in the emphasis—for domestic *and* international reasons—on high levels of income and employment, in massive foreign aid, and in the extent to which discrimination was tolerated.

As to the current balance-of-payments difficulties, Mr. Southard acknowledges that a discipline exists "in the sense that we must and

will in one way or another achieve a reasonable equilibrium." There can be no disagreement with this statement. Yet it leaves unanswered the question of the form that the discipline may take. This is a question that raises crucial policy issues, and rather than try to answer this question, I shall merely point to some of the areas in which a solution may lie.

It is obvious that those who see in the present need for a balance-of-payments discipline policies that are aimed at avoiding inflation are merely expressing a commendable general principle with limited relevance to the present situation. The present situation is one of recession, and, for that reason, deflation also has to be excluded from the realm of practical policy alternatives. Apart from the purely political obstacles to such a policy, deflation as a balance-of-payments discipline for the United States might be as detrimental to confidence in the dollar as an inflationary splurge. This leaves what Mr. Southard calls "direct action," namely, export promotion, tied aid, cutbacks in military expenditures overseas, etc. It is quite apparent that some of these direct measures would be rather slow in exerting their effects, while the others suffer from certain political drawbacks.

It becomes painfully apparent, therefore, that the range of policies through which an effective balance-of-payments discipline might express itself is rather limited. We ought to keep in mind, however, that any discipline directed against the trade balance would not be acting on the major source of our difficulties. The United States export surplus has been running at near-record levels. A more important source of the disequilibrium, at least over the past year, has been the capital account, particularly interest rate–induced and purely speculative outflows of short-term funds. This problem would seem to call for narrowing interest-rate differentials between New York and the major foreign financial centers. One way of achieving this during a period of recession might be to place a greater share of the responsibility for promoting recovery of fiscal policy, thereby relieving monetary policy of the need to keep interest rates lower than warranted by external considerations. Because of the rigidities of the fiscal mechanism and for other reasons, such a course has certain serious drawbacks. Another course, already in evidence, is a more flexible open-market policy, particularly with respect to the acquisition of longer-term maturities.

Fundamentally, however, the present dilemma leads us to the conclusion that the smooth functioning of the international financial mechanism, as based on the dollar-exchange standard, requires a co-

ordinated and systematic multilateral discipline rather than the haphazard, unilateral discipline that we are discussing here. When Mr. Southard indicates that, "given a relatively sluggish mechanism of adjustment in the United States, the greater responsiveness of the balances of payments of other industrial countries is doubly important," he is, in effect, pointing to this need for co-operative measures on an international scale to keep the dollar afloat and the international payments mechanism functioning. Obviously, such a multilateral approach is particularly urgent when the deficit country is one whose currency serves as the anchor of the international payments system and furnishes the world's liquidity needs. For a reserve currency like the dollar there can be no simple discipline of deflation or inflation, import restrictions or other direct control, just as there can be no flirtation with devaluation. The direct measures which Mr. Southard suggests may be a necessary expedient for the time being. For the longer run, however, the discipline lies elsewhere. In a convertible world in which the public is ever more alert to the opportunities for hedging and for speculation, the unilateral discipline is too heavy a burden to bear, particularly when deficits exist side by side with less than full employment and when the country involved bears the responsibility for keeping the world financial mechanism functioning smoothly and meeting a large part of the global liquidity requirements. Under such conditions, the discipline of the balance of payments may well have to take the form of formal or informal commitments and agreements to co-ordinate financial policies among the major countries, not only in the field of development aid and defense, but also in the sphere of interest-rate, gold, and foreign-exchange policy. There is certainly no immediate danger of a "dollar crisis." But unless the smooth functioning of the dollar-exchange standard becomes the joint responsibility of the major financial centers, we may well be facing the unhappy prospect of alternating pressures on the dollar and on international liquidity, with all the disruptive and wasteful repercussions of such swings.

FINANCING THE DECADE OF THE SIXTIES

A FINANCIAL FRAMEWORK FOR ECONOMIC GROWTH*

ROBERT A. KAVESH and JUDITH MACKEY
New York University and Townsend-Greenspan & Co., Inc.

THE POSTWAR PERIOD has witnessed a tremendous increase in the number and sophistication of economic forecasts. Techniques have improved considerably as more light has been cast on economic processes and better statistics have become available. This is not to suggest that the record is approaching infallibility—the truth is far from that—but there appears to be a definite improvement in the ability to predict turning points, relative magnitudes of advance and decline, and the broad outlines of the internal structure of the cycle.

Prior to the recession of 1953–54 most forecasts dealt with the near-term outlook. It would seem that this preoccupation with the cycle rather than the trend was a holdover from the "depression psychology" of the early postwar period. Immediately after World War II most forecasts anticipated sharply rising rates of unemployment; it was not for almost a decade thereafter that the "New Era" thinking began. And with it came the proliferation of long-term forecasts. Although the formal procedure utilized in preparing these longer series differed substantially from the techniques employed in short-period analysis, one major similarity characterized both approaches: the financial implications were generally left out or relegated to a subordinate role.

This is not to say that no analysis of the financial structure was undertaken. Far from it; we have witnessed a considerable refinement in our methods of understanding the interactions of our financial system. But the linking of economic and financial counterparts in a common theoretical framework has been neglected. Perhaps this

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should not come as any surprise. Why worry about an integration of the two sectors, some suggest; isn't the financial response merely reflected in the interest rate? Possibly, but we have seen too many instances recently when interest rates, far from being passive allocators, actually played an active role. Furthermore, in recent years, the primacy of monetary policy has been increasingly questioned, our financial structure has come under close scrutiny, and the problems of financing economic growth have assumed major proportions.

This paper, therefore, is designed to present a unified financial counterpart to a long-term economic projection. The procedure will be as follows: (1) A set of projections of economic activity in 1970 will be made, based on assumptions of varying rates of growth. From this set, a "judgment" model will be selected. (2) A theoretical framework, linking levels of economic and financial activity, will be introduced. This pattern of relationships will be applied to a projection of assets and liabilities for the individual components of the financial network, using the "judgment" model as reference. Given our assumptions, it is hoped that the resulting interrelations present a unified, consistent format.

I. The Economic Projections

This section summarizes the procedures followed in projecting economic activity in 1970. This summary can be brief, inasmuch as the literature relating to the preparation, interpretations, and evaluation of long-term forecasts is vast.[1]

There are two general elements behind the level of real GNP: the amount of work done and the efficiency with which it is performed. Put more technically, the supply of national output is dependent on man-hours worked and productivity (output per man-hour). It is the rate of change in these two factors that determines the rate of change in real output.[2]

1. It is always hazardous to set forth the chronology of a conceptual approach. Nevertheless, it appears that the first major document in this area was the 1928 study of C. W. Cobb and P. H. Douglas, "A Theory of Production," *American Economic Review Supplement*, March, 1928, pp. 139–65. Renewed interest has become apparent in the past dozen years, particularly in the writings of Domar, Harrod, Solow, Smithies, and Butler. More recent publications include J. W. Knowles, *The Potential Economic Growth in the U.S.* ("Study Papers on Employment, Growth and Price Levels," No. 20 [published by the Joint Economic Committee of the Congress, 1960]). A major continuing effort in this field has been undertaken by the National Planning Association in their national economic projections.

2. This is an oversimplification. Clearly, elements such as the availability of natural resources, the nature of research and development, the extent of innovation, the degree of competition, the rate of capacity development and utilization, the levels of educational achievement, the qualities of management, and the like are all relevant and important. However, they register ultimately in terms of their impact on the two basic elements mentioned.

We shall first look at man-hours. Trends in the aggregate amount of labor to be supplied may be derived from an analysis of past developments and of evolving trends. The Department of Labor has carefully surveyed the problem[3] and suggests that by 1970 the civilian labor force will aggregate roughly 85 million. This would represent a growth rate of $1\frac{3}{4}$ per cent per year during the next decade, somewhat above the trend of the last fifty years and sharply higher than the rate since 1950.

The next step is to make an assumption about the rate of unemployment. Then, subtracting unemployment from the civilian labor force, the number of employed workers may be derived. Just what constitutes an "acceptable" or "realistic" level of unemployment is debatable. Early in the postwar period 3–$3\frac{1}{2}$ per cent unemployed was considered "full employment." More recently, there have been indications that the politically tolerable level of unemployment is somewhat higher. In any case, the several models to be outlined have varying degrees of unemployment incorporated into them: the "judgment" or "full-employment" model assumes 4 per cent; the model of "retarded growth" includes 5 per cent; the "accelerated-growth" model uses $3\frac{1}{2}$ per cent; the "low-defense" model, 4 per cent.

Employment must then be multiplied by the length of the average workweek (and this total by 52) to derive the number of man-hours worked. Over the long run the workweek has been declining at slightly more than 0.5 per cent per year. It seems reasonable, however, to project a slight tapering-off in this rate of decline. Therefore, if we combine the trends in the growth of the labor force ($1\frac{3}{4}$ per cent) and the length of the workweek (—0.5 per cent), we conclude that the "judgment"-model estimate for the rate of growth of man-hours should be about $1\frac{1}{4}$ per cent per year.

A far more difficult matter to project than man-hours is the trend of productivity. The rate of increase in productivity has shown an upward trend. Between 1889 and 1919, physical output per man-hour rose at an annual rate of 2.0 per cent. Between 1919 and 1957, this rate averaged 2.6 per cent, and during the postwar period it was about 3.0 per cent. Should we assume a continuation of this upward trend? An answer cannot be given precisely: for the "judgment" model the postwar trend has been utilized; for the other models, modifying adjustments have been made.

Thus, by combining man-hours and productivity, we are able to

3. U.S. Department of Labor, *Manpower: Challenge of the Sixties* (1960).

project the level of potential economic activity from the supply side. The aggregate demand counterpart—GNP and its components—was derived on the basis of the growth rates based on the man-hours–productivity approach.[4]

Tables 1 and 2 illustrate the various models of economic growth on a GNP basis. The "judgment" model suggests that output growth during the next decade will be at 4¼ per cent average annual rate—based on a 3 per cent increase in productivity and 1¼ per cent increase in man-hours. The projections of this model are close to

TABLE 1*

GROSS NATIONAL PRODUCT PROJECTIONS, 1970
(Billions of Dollars)

	1959 Actual	Judgment Model	Arrested-Growth Model	Accelerated-Growth Model	Low-Defense Model
GROSS NATIONAL PRODUCT	482.1	762.0	685.0	869.0	762.0
Gov't purchases of goods and services	97.1	149.0	145.0	160.0	135.0
Federal	53.3	67.0	65.0	73.0	53.0
State and local	43.9	82.0	80.0	87.0	82.0
Gross private domestic investment	72.0	113.0	96.0	156.0	112.0
Business fixed investment	43.8	76.0	64.0	113.0	74.0
Residential non-farm housing	22.3	31.0	27.0	35.0	32.0
Inventory change	+5.9	+6.0	+5.0	+8.0	+6.0
Net exports of goods and services	−1.0	+3.0	+3.0	+3.0	+3.0
Personal consumption expenditures	313.8	497.0	441.0	550.0	512.0
Durables	43.4	60.0	54.0	69.0	65.0
Non-durables	147.7	234.0	204.0	253.0	237.0
Services	122.8	203.0	183.0	228.0	210.0
Assumed average rate of growth of GNP in % per year		4¼	3¼	5½	4¼

* Source: Department of Commerce for 1959.

those made by the N.P.A. This rate of growth is somewhat higher than the long-term trend of roughly 3.6 per cent since 1839 and above the postwar record of about 3.7 per cent. The rise in the next decade, as compared with the trend since the end of World War II, is accounted for entirely by the more rapid rise in the labor force.

A comparison of the models highlights the importance of capital formation in accelerating economic growth.[5] It also emphasizes the

4. For a discussion of the possible disequilibria resulting from imbalances between the growth of potential output and aggregate demand, see Knowles, *op. cit.*, p. 12.

5. For a discussion of some of the complications see A. Smithies, "Productivity, Real Wages, and Economic Growth," *Quarterly Journal of Economics*, May, 1960, pp. 189–205.

power of compound interest, in that small differences in the rate of growth can cause a very substantial difference in annual output at the end of a decade; almost $200 billion separates the lowest and highest projections of 1970 GNP.

It should be pointed out that all these models assume that there will be no major outbreak of military hostilities. Indeed, the "low-defense" model assumes a sharp cutback in defense outlays, partly offset by other federal spending. Furthermore, all figures are rendered in constant 1959 dollars. In addition, it is assumed that the

TABLE 2

NATION'S ECONOMIC BUDGET (JUDGMENT MODEL), 1970
(Billions of Dollars)

	Disposable Receipts	Purchases of Goods and Services	Excess of Receipts
Households	538.0	497.0	+41.0
Domestic Investment	77.0	113.0	−36.0
Net International	1.0	3.0	− 2.0
Government	146.0	149.0	− 3.0
GNP	762.0	762.0	

POTENTIAL OUTPUT (JUDGMENT MODEL)

Labor force	87.1 million	Average workweek	37.8 hours
Civilian labor force	85.5 million	Total man-hours	161.4 billion
Unemployment (4%)	3.4 million	Output per man-hour	$4.72
Employment	82.1 million	Gross National Product	$762.0 billion

federal budget for goods and services is in balance over the decade, with the entire government deficit incurred at the state and local levels. Finally, the growth pattern implied here is not a smooth, continuous one. Minor cycles, typified by the postwar experience, are assumed to continue to play a role in economic development and change.

II. The Financial Counterpart

Once the "judgment" model of economic activity has been determined, the next step is the derivation of an implied financial counterpart. The literature on this subject is exceedingly sparse. For the most part, the only economists to deal with this matter at all have

been those engaged in analyzing the sources and uses of funds.[6] However, their studies tend to concentrate primarily on the financial projections themselves and do not operate with a model designed to link the magnitudes for the economic sector to those in the financial area.[7]

The first step in relating the real to the financial sector is to define more precisely each of the sectors to be measured. The physical economic sphere was fairly easy, since GNP has constituted the commonly accepted measuring rod. The financial sphere was more difficult. Numerous financial instruments exist, some having a direct contact with the physical economic sphere and some originating a step or two removed from it.[8]

It was decided that the Gurley-Shaw distinction between primary securities and other financial securities should be adopted. As defined by Gurley, "Primary securities are all debt and equity obligations of nonfinancial economic units."[9] In accordance with this terminology, the obligations of financial institutions will be called "secondary securities" in this paper[10]

Primary securities include United States government securities,[11] state and local government issues, corporate bonds and stocks, mortgages, consumer debt, bank loans other than consumer loans and mortgage loans, trade credit, and policy by life insurance companies. Secondary securities consist of savings and loan shares, savings or

6. A review of the various techniques applied in sources and uses analysis, as well as an appraisal of their over-all effectiveness, may be found in William Freund, "An Appraisal of the Sources and Uses of Funds Approach to the Analysis of Financial Markets," *Journal of Finance*, May, 1958, pp. 275–94.

7. A partial attempt to do this is implicit in the corporate sources and uses tables which are frequently prepared as background data for the over-all analysis. However, these tables merely present the projected relationship between the two sets of figures—those covering physical economic events (capital expenditures, inventory accumulation, etc.) and those comprising financial entities (bonds, stocks, mortgages, bank loans, etc.). The reasons for assuming a particular configuration are never spelled out in detail.

8. The authors' findings are discussed more fully in the final section of the paper. We should like to indicate here, however, that the state of liquidity of the economy was the factor which emerged as the dominant dynamic element in the relationship between the real and financial sectors of the economy.

9. John G. Gurley, *Liquidity and Financial Institutions in the Postwar Period* ("Study Papers," No. 14, prepared in Connection with the Study of Employment, Growth, and Price Levels by the Joint Economic Committee of the Congress of the United States [Washington: Government Printing Office, January 25, 1960]), p. 25.

10. Gurley's "nonmonetary indirect assets" (*ibid.*, p. 22).

11. Although Gurley and Shaw include only the direct obligations of the United States government, federal agency issues not guaranteed by the United States government should also be considered as primary securities.

time deposit passbooks (whether issued by commercial banks, mutual savings banks, or the postal savings sytem), credit-union shares, and that portion of life insurance contracts covering ownership of policy reserves.

The decision to isolate primary securities was based on the close association between these securities and the physical economic sphere. The link between the two sectors derives from the nature of primary securities. These securities represent the legal confirmation of the transfer of loan or equity funds to their final users.[12] The final users—individual consumers, business firms, farmers, or governmental bodies—may use the funds for a variety of purposes. The money may be used to produce or purchase current output. It may also be used to acquire other primary securities or other assets. Most frequently, however, the creation of the primary security stems from the need for financing current output—that is, physical economic activities as reflected in GNP.

Although the primary security may agree in amount with the dollar value of the current physical economic activity, the two need not maintain a one-to-one ratio.[13] Herein lies the core of the projection difficulty. The primary security may equal, be less than, or be greater than its counterpart in the sphere of physical economic activity.

It is evident that if all the funds required for the physical economic activity are borrowed, the face value of the primary security will coincide with the GNP value of that activity. The GNP value of the economic operation will exceed that of the primary security (or securities) issued in its behalf if borrowings account for only a portion of the requisite funds. In the instances cited, the firm might use its own capital to cover part of the costs attached to enlarging plant or adding equipment.[14] The home buyer might draw

12. As contrasted with the secondary securities, which provide legal confirmation of the transfer of savings to financial intermediaries. The financial intermediaries, in turn, use these savings to acquire primary securities.

13. The discussion is couched in terms of a single primary security and its counterparts in the physical economic sphere for simplicity of exposition. Actually, however, the pertinent relationship is between the total net increase in primary securities and GNP. It is true that certain types of primary securities are commonly associated with particular forms of economic activity. For example, corporate bonds with plant and equipment expansion or bank loans with the buildup of inventories. However, the forms of financing have a high degree of substitutability in short periods. The point at issue may be demonstrated with the following illustration. In periods of falling interest rates, or when expectation of falling rates has prevailed, corporations historically have utilized bank loans to finance capital expansion programs, postponing their long-term bond flotations until interest costs have declined to more acceptable levels.

14. Put more technically, the firm might engage in internal, as well as external, financing.

upon his savings to cover a portion of the costs of the newly built house.[15] The local governmental body might raise some of the money needed to carry out the public improvements by increasing taxes. On the other hand, the value of the primary security might be increased without any comparable physical economic activity. This generally occurs in periods of rising prices. At such times the upward adjustment in the value of physical economic objects serves as the base for the increase in the value of an outstanding primary security or the issuance of a new primary security.[16] Despite the discrepancy between GNP and the dollar value of the net increase in primary securities, the tie between the two has been sufficiently strong to induce some regularity in the pattern of the relationship.[17]

The GNP projections presented in this paper were derived on the assumption that the economy would be prosperous in 1970. Consequently, the regularities sought for between GNP and primary securities were those which would prevail in periods of peak economic activity.[18]

GNP measures the flow of goods and services in any given period. Theoretically, therefore, the proper financial counterpart of GNP could be the net increase in outstanding primary securities over that period, particularly if the period chosen were long enough to cover time lags between physical economic and financial activities. However, the annual breakdowns used here were too short to permit time lags to be ignored. The data on the annual changes in

15. Generally a financial institution will provide the construction financing. This will be repaid at the time of sale of the house. The savings will provide the down payment, and the take-out mortgage will provide the remaining sums required to meet the construction loan.

16. A prime example of the way in which rising prices may stimulate the outstanding value of a class of primary securities to soar above the value of the comparable physical economic activity may be found in the home-building and mortgage markets in the period since the end of World War II.

17. This is not surprising, since the discrepancies themselves are a reflection of economic developments. For example, the rising price trend cited above.

18. It is hoped that the discovery of the basic relationship pattern to which the variables return in prosperous times will provide a fruitful base for the examination of the special cases of different kinds, or degrees, of recessions or depressions.

The assumption of peak-level activity in 1970 is justifiable in view of the purpose of the study. The study was designed to explore the various patterns which the economic and financial sectors would assume under full-employment economies which derived from different economic models, i.e., those with more or less rapid growth rates, those with higher or lower defense expenditures, etc. The study did not explore the impact on the over-all economy or the financial system of serious underutilization of resources in the years ahead. It was assumed, rather, that, regardless of the specific events in the coming decade, the period around 1970 would generally be characterized by full employment, although minor recessions would be expected to recur periodically. On this basis, 1970 was selected as a conveniently located projection year for the period.

outstanding primary securities are extremely volatile, and the data for any given year need not reflect primarily the GNP activity of that year.

The gyrations of particular years assume far less significance if the total volume of outstanding primary securities is examined rather than the net annual increase. This is not only desirable statistically, but it is permissible theoretically as well. While the figures on total outstanding primary securities are not too responsive to annual changes, they do reflect quite clearly the developments over a period of time. Thus the decision to study peak periods of full activity, with the given year 1970 considered to be only a sample year, led the authors to relate GNP to total outstanding primary securities.

Historical data reveal that the ratio of total outstanding primary securities to GNP seems to fluctuate within a relatively narrow band in peak periods of full employment. The greatest concentration seems to center around 2.5. Extrapolating this ratio to 1970 and utilizing the "judgment" model in which GNP is $762 billion, primary securities in 1970 are estimated at $1,917.9 billion.[19]

Once the 1970 projections for primary securities were obtained, attention was focused on the problem of estimating outstanding secondary securities in that year. Secondary securities are major liabilities of financial intermediaries. In estimating these securities, the data were found to be more accurate if the assets of these institutions were projected first. On the basis of the asset estimates, balance sheets were then drawn up for each institution. These balance sheets permitted the asset estimates to be converted to show the secondary securities issued by the financial intermediaries.

The assets of the financial intermediaries were also obtained by extrapolating to 1970 certain relationships between these assets and outstanding primary securities which had been discerned historically. Before examining the numbers which this method produced, some attention should be given to its theoretical justification. Although the size and composition of the assets of the various financial intermediaries may change from period to period, reflecting specific economic events and developments, the basic economic role played by this group of institutions does not change over time. The essential characteristic of these institutions is that of financial intermediary. They represent an intermediate step in the flow of funds from the

19. The violation of the common rules relating to "significant digits" may be explained in part by reference to the assumption of a constant level of federal debt—$290.9 billion in both 1959 and 1970.

individual source of savings to its ultimate use by business, government, other individuals, etc.

Financial intermediaries engage in two types of transactions. In the first transaction they acquire savings from individuals by issuing to them claims against themselves. In the second transaction the financial intermediaries lend the savings to their final users, purchasing in the process the debt instruments issued by these final users. These debt instruments—bonds, mortgages, etc.—constitute the primary securities of the economy as defined above.

Since the financial intermediaries have diversified portfolios and since the claims against them are guaranteed by the government to some extent, the risk attached to holding a claim against a financial institution is smaller than that entailed in direct ownership of a primary security. Consequently, the process of intermediation enables savers to satisfy their requirements for greater security by permitting them to substitute the more secure claim against the financial intermediary for the riskier primary security.

Not all savings, of course, are channeled through the financial intermediaries. Individuals generally are willing to forego some liquidity on a portion of their savings in order to earn a higher rate of interest. Therefore, part of individual savings usually is invested directly in primary securities. Nevertheless, the fundamental relationship between the over-all size of the financial intermediaries and the aggregate outstanding market value of primary securities permits the measurement of one against the other.

Returning to the numbers, the first step in estimating the assets of the financial intermediaries was to segregate the banking system from the non-bank financial institutions. In 1959, Alan Greenspan demonstrated that the market rate of interest is a function of the proportion of primary securities held by the commercial banks.[20] Greenspan's function clearly could be turned around and used to estimate the assets of the banking system in 1970, provided that a given rate of interest and a given aggregate of primary securities could be assumed. Since the estimate for total primary securities was already available at this stage of the work, the focus turned to the problem of selecting a probable interest rate for 1970.

Although yields have fluctuated at various previous peak periods of full employment, the evidence suggests that there has not been any substantial sustained secular trend in riskless interest rates.

20. Alan Greenspan, "Stock Prices and Capital Evaluation," *1959 Proceedings of the Business and Economic Statistics Section of the American Statistical Association*, pp. 2–26.

According to Macaulay's findings,[21] yields were in a basic downtrend from 1875 to the turn of the century and then entered an uptrend phase which lasted until 1920. His data show that interest rates subsequently entered another declining period which was not reversed until after World War II. The years since then have been marked by a gradual updrift in the level of yields.

If interest rates do not have a long-term trend, then the only valid projection for a long-term forecast for interest rates would be a flat projection. The question centers, then, on the base which should be used for this projection. The base clearly should be one which is within the range of the average or normal level of yields in periods of peak activity. In examining the data to determine an appropriate base, we ruled out virtually all the experience between 1933 and 1955 on the ground that there was then an excess supply of money in existence, i.e., a very low income-velocity ratio. The other relevant periods show that the interest rates prevailing at the end of 1959 and the income velocity at that time were similar to those which had characterized the period of the late 1920's, as well as numerous periods prior to World War I. In some instances the level was almost precisely the same. In others it was the level around which the actual figures fluctuated.

Although the range of possibilities can be fairly wide for 1970, it is our belief that yields on corporate Aaa's will be in the range of $4\frac{1}{2}$–$4\frac{3}{4}$ per cent. Concentration near this range in years of peak activity is clearly evident in Chart I. Therefore, of the numerous likely eventualities for yields in 1970, should that be a year of peak activity, the range which we have chosen would appear to be the most probable on the basis of the available evidence.

This is also roughly the same range as that which prevailed at the end of 1959. On the basis of the assumption that interest rates will be about the same in 1970 as in 1959, the ratio of banking system assets to total primary securities which prevailed in that year could be extrapolated to the 1970 period. The ratio held at roughly 24 per cent in most periods of peak activity, including 1959. Taking 24 per cent of $1,917.9 billion, we estimate the assets of the banking system in 1970 at $460 billion.

The method followed in estimating the total assets of non-bank financial intermediaries was similar to that employed in calculating the assets of the banking system. The ratio of the total assets of these

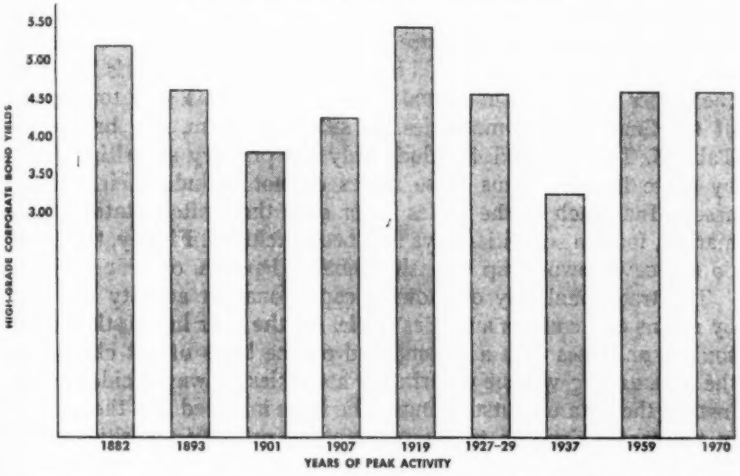
21. Frederick R. Macaulay, *Some Theoretical Problems Suggested by the Movements of Interest Rates, Bond Yields and Stock Prices in the United States since 1856* (New York: National Bureau of Economic Research, 1938), Chart 23, p. 224.

intermediaries to total primary securities was observed, to determine whether a relevant historical pattern could be distinguished. This ratio was then multiplied by projected primary securities to obtain an estimate for total non-bank financial intermediary assets in 1970.

The ratio of aggregate non-bank financial intermediary assets to total primary securities apparently has been rising throughout this century. In projecting these assets to 1970, the historical growth trend

CHART I

INTEREST RATES IN PERIODS OF PEAK ACTIVITY



Source: Frederick R. Macaulay, *Some Theoretical Problems Suggested by the Movements of Interest Rates, Bond Yields and Stock Prices in the United States since 1856* (New York: National Bureau of Economic Research, 1938).

for this sector was slightly reduced. This seemed justified on the ground that if the growth trend did not slow down, these intermediaries would hold all outstanding primary securities by 1970, which hardly seemed likely. On the basis of the modified trend line for these intermediaries, their total assets were projected at $855 billion in 1970.

Assets of the individual non-bank financial institutions cannot be assumed to bear the same relationship to the aggregate of primary securities as those of the banking system or those of all non-bank intermediaries. In fact, growth of the individual non-bank financial intermediaries relative to total primary securities seems to be largely

independent of the rate of interest prevailing at any given time.[22] Apparently the growth of each of these institutions is determined primarily by its own growth trend. Nevertheless, it should be noted that the independent derivation of the total assets of all non-bank financial intermediaries served as a check on the reliability of the individual projections for these institutions.[23]

III. The 1970 Capital Market

Once the 1970 projections for the individual institutions and for the outstanding primary securities had been derived, the various estimates could be fitted together to portray the capital market in 1970. A picture of the 1970 capital market is presented in Table 4. Comparable data for 1959 are provided in Table 3. In examining these tables, the reader should bear in mind that the totals listed for the lender groups are not equal to their total assets. The total assets of the financial intermediaries, in summary form, can be seen in Table 5. Tables 3 and 4 include only the primary securities owned by these lenders. Thus these tables do not include their tangible assets. Inasmuch as the tables cover only the United States capital market, foreign securities have also been excluded. Finally, the tables do not cover ownership of cash, demand deposits, or time deposits.

The traditional way of showing capital-market activity has been by means of a sources and uses model for the year in question. Since sources and uses data are computed on the basis of net changes in the outstanding volume of primary securities, it was decided to use instead the data on outstandings. The issue involved was the same as in the earlier decision to use outstanding primary securities rather than net changes, namely, that the net changes for any year are more highly influenced by random economic events, whereas the data on outstandings are a better reflection of trends over a given period of time.

A few of the salient features in Tables 4 and 5 may be noted. For one thing, the importance of financial intermediaries in the capi-

22. This is not entirely true. Some non-bank financial intermediaries can respond more quickly than others to changes in the prevailing level of interest rates. This enables them to gain competitive advantage and thereby accelerate their rate of growth in periods of changing yields. This has been particularly true of periods of rising rates. The classic example in this connection is the phenomenal growth of savings and loan associations in recent years. Nevertheless, the generalization that the specific growth trend for each institution is the predominant element in its growth is essentially true. This is the critical factor in the current context, since it restricts the methodology to one which will not be dependent on any given level of interest rates.

23. For details on the analysis underlying the numerical values assigned to the financial institutions and instruments for 1970, see the complete text of the report submitted to the Commission on Money and Credit.

TABLE 3*

OWNERSHIP OF OUTSTANDING PRIMARY SECURITIES, 1959
(Billions of Dollars)

TABLE 3*

OWNERSHIP OF OUTSTANDING PRIMARY SECURITIES, 1959
(Billions of Dollars)

	Securities					Mortgages		Loans and Credit			Primary Securities
	Corp. Bonds	Corp. Stocks	State and Local	Fed. Gov't.	Non-guar. Fed. Debt	1–4-Family	Other	Business Credit	Consumer Credit	All Other	
Savings inst., total	62.5	13.0	3.9	20.4	0.7	90.7	26.9	.....	4.8	5.0	227.9
Life ins. cos.	45.3	4.6	3.2	6.9	0.1	23.6	15.6	.....	.....	4.6	103.9
Sav. and loan assoc.	.....	.....	.....	4.5	†	49.7	3.4	.....	.....	.....	57.6
Mutual sav. banks	4.4	†	0.7	6.9	0.4	16.8	7.9	.....	.....	0.4	37.5
Corp. pension funds	12.8	8.4	†	2.1	0.2	0.6	.....	.....	.....	.....	24.1
Credit unions	.....	.....	.....	.....	.....	.....	.....	.....	4.8	.....	4.8
Gov't intermed., total	8.1	.....	7.0	58.3	.....	6.7	.....	0.7	.....	10.7	91.5
Fed. and state retire. fds.	8.1	.....	7.0	53.6	.....	.....	.....	.....	.....	.....	68.7
U.S. govt agencies	.....	.....	.....	4.7	.....	6.7	.....	0.7	.....	10.7	22.8
Other non-bank intermed., total	4.2	25.9	8.3	10.3	0.2	3.0	†	6.8	15.0	5.3	79.0
Fire and cas. ins. cos.	2.7	11.5	7.8	6.7	0.2	1.0	.....	1.8	.....	0.3	32.0
Investment cos.	1.0	13.9	.....	0.6	.....	.....	.....	.....	.....	.....	15.5
Misc. non-bank inst.	0.5	0.5	0.5	3.0	†	2.0	†	5.0	15.0	5.0	31.5
Total non-bank intermed.	74.8	38.9	19.2	89.0	0.9	100.4	26.9	7.5	19.8	21.0	398.4
Banking system, total	†	.....	17.0	85.9	1.5	19.2	9.0	45.8	18.5	20.6	217.5
Commercial banks	†	.....	17.0	58.9	1.5	19.2	9.0	45.8	18.5	20.6	190.5
Federal Reserve banks	.....	.....	.....	27.0	.....	.....	.....	.....	.....	†	27.0
Total financial inter.	74.8	38.9	36.2	174.9	2.4	119.6	35.9	53.3	38.3	41.6	615.9
All other owners	10.5	407.5	27.5	116.0	5.5	11.4	24.1	.....	13.7	.....	616.2
Total owners	85.3	446.4	63.7	290.9	7.9	131.0	60.0	53.3	52.0	41.6	1,232.1

* Components may not add to totals because of rounding.

† Under $50 million.

TABLE 4*

OWNERSHIP OF OUTSTANDING PRIMARY SECURITIES, 1970
(Billions of Dollars)

	SECURITIES					MORTGAGES		LOANS AND CREDIT			TOTAL PRIMARY SECURITIES
	Corp. Bonds	Corp. Stocks	State and Local	Fed. Gov't.	Nonguar. Fed. Debt	1–4-Family	Other	Business Credit	Consumer Credit	All Other	
Savings inst., total	104.0	40.0	12.5	38.0	4.5	194.0	49.0	.....	13.0	9.0	464.0
Life ins. cos.	75.0	10.0	10.0	10.0	0.5	45.0	27.0	.....	.....	8.0	185.5
Sav. and loan assoc.	.....	.....	.....	15.0	2.0	120.0	10.0	.....	.....	.....	147.0
Mutual sav. banks	9.0	†	2.5	7.0	1.0	25.0	12.0	.....	.....	1.0	57.5
Corp. pension funds	20.0	30.0	†	4.0	1.0	4.0	†	.....	.....	.....	59.0
Credit unions	.....	.....	.....	2.0	.....	.....	.....	.....	13.0	.....	15.0
Gov't intermed., total	10.0	.....	20.0	50.0	.....	15.0	.....	3.0	.....	20.0	118.0
Fed. and state retire. fds	10.0	.....	20.0	45.0	.....	5.0	.....	.....	.....	.....	80.0
U.S. gov't agencies	.....	.....	.....	5.0	.....	10.0	.....	3.0	.....	20.0	38.0
Other non-bank intermed., total	9.0	61.5	16.0	10.5	2.0	10.0	†	13.5	25.0	10.5	158.0
Fire and cas. ins. cos.	5.5	25.0	15.0	5.0	1.5	3.0	†	3.5	.....	0.5	59.0
Investment cos.	2.5	35.0	.....	0.5	.....	2.0	.....	.....	.....	.....	40.0
Misc. non-bank inst.	1.0	1.5	1.0	5.0	0.5	5.0	†	10.0	25.0	10.0	59.0
Total non-bank intermed.	123.0	101.5	48.5	98.5	6.5	219.0	49.0	16.5	38.0	39.5	740.0
Banking system, total	†	.....	30.0	99.0	5.0	35.0	15.0	80.0	60.0	34.0	358.0
Commercial banks	†	.....	30.0	70.0	5.0	35.0	15.0	80.0	60.0	30.0	325.0
Federal Reserve banks	.....	.....	.....	29.0	.....	.....	.....	.....	.....	4.0	33.0
Total financial intermed.	123.0	101.5	78.5	197.5	11.5	254.0	64.0	96.5	98.0	73.5	1,098.0
All other owners	27.0	548.5	21.5	93.4	25.5	31.0	46.0	.....	27.0	.....	819.9
Total owners	150.0	650.0	100.0	290.9	37.0	285.0	110.0	96.5	125.0	73.5	1,917.9

* Components may not add to totals because of rounding.

† Under $50 million.

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tal market will increase in line with their historical trend. However, it should be noted that non-institutional holders will still account for roughly two-fifths of the total. With the exception of government intermediaries, every segment of the financial intermediaries will have grown in its participation in the capital market. It should be pointed out, however, that this conclusion essentially stems from the basic asumptions made in putting the numbers together.

Among the financial intermediaries, non-banks are slated to grow faster than the banking system. This is a result of the anticipated

TABLE 5

ASSETS OF FINANCIAL INTERMEDIARIES

	Billions of Dollars		Percentages	
	1959	1970	1959	1970
Life insurance companies	113.7	200.0	14.7	15.2
Savings and loan associations	63.5	155.0	8.2	11.8
Mutual savings banks	38.9	60.0	5.0	4.6
Corporate pension funds	25.3	60.0	3.3	4.6
U.S. gov't agencies	80.6	125.0	10.4	9.5
Fire and casualty ins. cos.	33.3	60.0	4.3	4.6
Investment cos.	15.8	40.0	2.0	3.0
Fed., state, and local retirement funds	68.7	80.0	8.9	6.1
Credit unions	4.8	15.0	0.6	1.1
Miscellaneous non-bank intermediaries	32.9	60.0	4.2	4.6
Total non-bank	477.5	855.0	61.6	65.0
Banking system	298.0	460.0	38.4	35.0
Total financial intermediaries	775.5	1,315.0	100.0	100.0

† Under $50 million

* Components may not add to totals because of rounding.

sharp increase in the share accounted for by savings institutions. Nevertheless, the banking system will hold slightly under one-fifth of total primary securities—a somewhat higher ratio than currently prevails. With respect to the banking system, the major change appears to be the increased emphasis on consumer credit. At the same time, federal government securities will represent a smaller portion of their total holdings. This is to be expected in view of the fact that government debt will constitute a much smaller proportion of outstanding primary securities in 1970. Consequently, there will be relatively less pressure on the banks to purchase governments.

While business credit will represent a slightly larger proportion of the investments of the banking system, the banks will be extend-

ing a somewhat smaller portion of the total business credit outstanding in 1970 than in 1959. By 1970, other financial intermediaries will have assumed greater importance in this area, particularly the government intermediaries and miscellaneous non-bank institutions. The government lending agencies will meet part of the demand for small business financing, although there will also be greater reliance on finance companies and factoring concerns.

Savings institutions will play less of a role in the corporate bond market while still accounting for close to 70 per cent of the owner-

TABLE 6

OUTSTANDING PRIMARY SECURITIES

	BILLIONS OF DOLLARS		PERCENTAGES	
	1959	1970	1959	1970
Corporate bonds	85.3	150.0	6.9	7.8
Corporate stocks	446.4	650.0	36.2	33.9
State and local issues	63.7	100.0	5.2	5.2
Federal government securities	290.9	290.9	23.6	15.2
Non-guar. federal debt	7.9	37.0	0.6	1.9
1–4-family mortgages	131.0	285.0	10.6	14.9
Other mortgages	60.0	110.0	4.9	5.7
Business credit	53.3	96.5	4.3	5.0
Consumer credit	52.0	125.0	4.2	6.5
All other credit	41.6	73.5	3.4	3.8
Total primary securities	1,232.1	1,917.9	100.0	100.0
Summary:				
Total securities	894.2	1,227.9	72.6	64.0
Total mortgages	191.0	395.0	15.5	20.6
Total loans and credit	146.9	295.0	11.9	15.4

ship of all these bonds. This relative decline in their holdings reflects the fact that life insurance companies, which are quite important in the corporate bond market, will be growing more slowly than other savings institutions, especially the savings and loan associations and credit unions.

The non-bank intermediaries will be a more important factor in the corporate bond market. Some of the funds which they will be putting into corporate bonds will come from reductions in their holdings of federal government securities. Finally, the miscellaneous non-intermediary group, particularly the individual component of it, will be dealing more heavily in mortgages in 1970. The relevant data for these observations are recorded in Tables 6 to 12.

TABLE 7

TOTAL OUTSTANDING PRIMARY SECURITIES

	BILLIONS OF DOLLARS		PERCENTAGES	
	1959	1970	1959	1970
Savings institutions	227.9	464.0	18.5	24.2
Gov't intermediaries	91.5	118.0	7.4	6.2
Other non-bank intermediaries	79.0	158.0	6.4	8.2
Total non-bank intermediaries	398.4	740.0	32.3	38.6
Banking system	217.5	358.0	17.7	18.7
Total financial intermediaries	615.9	1,098.0	50.0	57.3
All other owners	616.2	819.9	50.0	42.7
Total owners	1,232.1	1,917.9	100.0	100.0

TABLE 8

SAVINGS INSTITUTIONS

	BILLIONS OF DOLLARS		PERCENTAGES	
	1959	1970	1959	1970
Corporate bonds	62.5	104.0	27.4	22.4
Corporate stocks	13.0	40.0	5.7	8.6
State and local issues	3.9	12.5	1.7	2.7
Federal government securities	20.4	38.0	9.0	8.2
Non-guar. federal debt	0.7	4.5	0.3	1.0
1-4-family mortgages	90.7	194.0	39.8	41.8
Other mortages	26.9	49.0	11.8	10.6
Business credit				
Consumer credit	4.8	13.0	2.1	2.8
All other credit	5.0	9.0	2.2	1.9
Total primary securities	227.9	464.0	100.0	100.0
Summary:				
Total securities	100.5	199.0	44.1	42.9
Total mortgages	117.6	243.0	51.6	52.4
Total loans and credit	9.8	22.0	4.3	4.7

TABLE 9

GOVERNMENT INTERMEDIARIES

	BILLIONS OF DOLLARS		PERCENTAGES	
	1959	1970	1959	1970
Corporate bonds	8.1	10.0	8.9	8.5
Corporate stocks				
State and local issues	7.0	20.0	7.7	16.9
Federal government securities	58.3	50.0	63.7	42.4
Non-guar. federal debt				
1–4-family mortgages	6.7	15.0	7.3	12.7
Other mortgages				
Business credit	0.7	3.0	0.8	2.5
Consumer credit				
All other credit	10.7	20.0	11.7	16.9
Total primary securities	91.5	118.0	100.0	100.0
Summary:				
Total securities	73.4	80.0	80.2	67.8
Total mortgages	6.7	15.0	7.3	12.7
Total loans and credit	11.4	23.0	12.5	19.5

TABLE 10

OTHER NON-BANK INTERMEDIARIES

	BILLIONS OF DOLLARS		PERCENTAGES	
	1959	1970	1959	1970
Corporate bonds	4.2	9.0	5.3	5.7
Corporate stocks	25.9	61.5	32.8	38.9
State and local issues	8.3	16.0	10.5	10.1
Federal government securities	10.3	10.5	13.0	6.6
Non-guar. federal debt	0.2	2.0	0.3	1.3
1–4-family mortgages	3.0	10.0	3.8	6.3
Other mortgages	*	*		
Business credit	6.8	13.5	8.6	8.5
Consumer credit	15.0	25.0	19.0	15.8
All other credit	5.3	10.5	6.7	6.6
Total primary securities	79.0	158.0	100.0	100.0
Summary:				
Total securities	48.9	99.0	61.9	62.7
Total mortgages	3.0	10.0	3.8	6.3
Total loans and credit	27.1	49.0	34.3	31.0

* Under $50 million.

TABLE 11

THE BANKING SYSTEM

	Billions of Dollars		Percentages	
	1959	1970	1959	1970
Corporate bonds	*	*		
Corporate stocks				
State and local issues	17.0	30.0	7.8	8.4
Federal government securities	85.9	99.0	39.5	27.7
Non-guar. federal debt	1.5	5.0	0.7	1.4
1–4-family mortgages	19.2	35.0	8.8	9.8
Other mortgages	9.0	15.0	4.1	4.2
Business credit	45.8	80.0	21.1	22.3
Consumer credit	18.5	60.0	8.5	16.8
All other credit	20.6	34.0	9.5	9.5
Total primary securities	217.5	358.0	100.0	100.0
Summary:				
Total securities	104.4	134.0	48.0	37.4
Total mortgages	28.2	50.0	13.0	14.0
Total loans and credit	84.9	174.0	39.0	48.6

* Under $50 million.

TABLE 12

ALL OTHER OWNERS

	Billions of Dollars		Percentages	
	1959	1970	1959	1970
Corporate bonds	10.5	27.0	1.7	3.3
Corporate stocks	407.5	548.5	66.1	66.9
State and local issues	27.5	21.5	4.5	2.6
Federal government securities	116.0	93.4	18.8	11.4
Non-guar. federal debt	5.5	25.5	0.9	3.1
1–4-family mortgages	11.4	31.0	1.9	3.8
Other mortgages	24.1	46.0	3.9	5.6
Business credit				
Consumer credit	13.7	27.0	2.2	3.3
All other credit				
Total primary securities	616.2	819.9	100.0	100.0
Summary:				
Total securities	567.0	715.9	92.0	87.3
Total mortgages	35.5	77.0	5.8	9.4
Total loans and credit	13.7	27.0	2.2	3.3

IV. Some Theoretical Considerations

This paper has presented a series of economic projections for 1970 and the resultant financial translations for the "judgment" model. The underlying co-ordinating element in these two aspects of business activity is liquidity. Clearly, as an economy grows, the financial counterpart must grow as well. However, the magnitudes of advance need not be the same, and the precise instruments used to carry out business transactions may be altered.

Liquidity is provided by money and near-money instruments. The more easily a financial instrument can be converted into money without loss, the greater the liquidity which it embodies. When the dollar volume of outstanding liquid instruments is fairly high relative to the over-all requirements of the economy, the system is in a liquid position. In such a situation, ownership of liquid instruments generally is fairly widespread. Consequently, in a highly liquid economy, consumers and businessmen have less need to resort to the capital markets for financing. On the other hand, when the liquidity position of the economy is reduced, individuals are forced to rely more heavily on the capital markets for financing. Consequently, the volume of primary securities rises more rapidly relative to the growth in the physical economic sphere.

The excessive liquidity built up in the economy during World War II and in the period immediately thereafter has been gradually reduced. By 1959 the average liquidity position which has generally characterized the economy in full-employment periods had been achieved again. It is this fact, basically, which underlay the numerical similarities which were observed historically in the relationship between the financial and the physical sectors. The assumption of 1970 as a "normal" peacetime year, with a "normal" peacetime liquidity position similar to that of 1959, permitted the application of the numerical constants between the financial and business sectors to be projected to 1970.

It may be useful at this point to discuss some implications of the basic assumptions of the "judgment" model. One of the major assumptions was that the level of the federal debt would be constant during the next decade; assuming no war or runaway inflation, this does not appear to be a highly unrealistic assumption. Furthermore, the matter of rising or falling debt, to a large extent, stems from the budgetary philosophy which underlies government outlays. By treating capital expenditures differently from current operational expenses, it becomes feasible to increase spending without necessarily increas-

ing the deficit. In addition, outlays may be raised through the medium of government lending agencies without corresponding budgetary impacts. It is this latter vehicle that we consider to have the potential for substantial growth in the years ahead. Special-purpose agencies, in all probability, will be relied upon to collect and disburse major portions of the federal government's funds.

With the dollar volume of the federal debt held constant, the matter of debt management would have to be considered in a somewhat different light. The ratio of federal debt to GNP would, of course, fall sharply, and opportunities would be available for revising the maturity schedule. However, it does not appear likely that a major portion of the debt would be shifted to the longer maturities, for the liquidity needs of the economy would have to be considered. Banks, corporations, and other lenders rely heavily on bills, certificates, and notes to provide elements of liquidity. To cut greatly into these instruments would require substitute forms. And even if the maturity structure of the debt were largely left unchanged, there would still be a need for other liquid instruments. Here, for example, we have assumed that the Federal Reserve authorities will substantially increase their operations in acceptances.

Another major issue that warrants closer scrutiny is inflation. All the models were based on the assumption of constant prices over the next decade. Clearly, this assumption does not square with the facts of the past decade. Perhaps there are cogent reasons for assuming a rising price level over the next decade. Yet the assumption of price stability does not appear to be an unreasonable one for the period ahead. The relative labor shortage, which characterized much of the postwar period, seems to have ended, and the additions to the labor supply will be rising sharply within a few years. Industrial capacity has lately tended to grow faster than output, putting another dampening force on price increases. International competition has imposed still further discipline on our pricing policies. The list of inflation-retarding forces could be extended even further.

To be sure, the arguments for stability, however powerful, assure nothing. What, then, would be the impact of inflation on the various estimates? It should be understood that the prospects of inflation are assumed here to include only the "creeping" variety and that if prices rise they will not rise smoothly or uniformly. Under these circumstances the pattern of the next decade might well be comparable to that of the last. Hedges would be sought, thus bidding up the market value of stocks; the growth of investment companies, too, would probably be stimulated; inventory demand would prob-

ably rise, pushing up the demand for bank loans (which could be made only if the Reserve authorities provided the means to validate the inflation). Conversely, life insurance companies and mutual savings banks would probably suffer relatively.

It is useful, too, to conjecture about the financial implications of the "accelerated"- and "retarded"-growth models. All our detailed projections were made in terms of the "judgment" model, yet it seems clear that, under other circumstances, there would be changes in the growth trends of several instruments and institutions under discussion. For example, under the accelerated-growth model the rate of investment would be substantially higher than in either of the other models. Although it is difficult to project the precise form that the additional financing would take, it seems reasonable to assume that external financing by both bonds and stocks would be sizably increased. In addition, the market value of stocks would probably be higher, reflecting the buoyant profit environment that would probably prevail. Bank loans, too, would in all likelihood be higher, to cover a greater volume of inventories. Consumer debt would probably be above the levels of the "judgment" model as a means of balancing aggregate supply and demand. There is no a priori reason to expect that federal debt would be increased. Similarly, the level of mortgage debt would probably rise, but not in line with the other sectors. Thus institutions primarily providing mortgage credit would tend to grow more slowly.

With regard to the retarded-growth model, the reverse of many of the preceding trends would generally prevail. However, housing would probably hold up reasonably well, with the result that mortgage lenders would not be so adversely affected as would most other institutions.

As a final note, a disquieting element always creeps into the interpretation of long-range projections. It is almost as if the observer rebels against the notion of trends without major discontinuities. History, clearly, may be viewed as a study of major shifts—problems emerging and being dealt with in an environment of uncertainty and adjustment. But it is almost in the nature of projections of economic (and financial) data that the trend triumphs over the cycle, the continuities over the discontinuities. Thus the analyst who searches through these tables for signs of collapse or impossible bottlenecks will come away with a sense that all seem too easy, too elemental.

It must be said, however, that the assumptions which are at the heart of every projection (and which are too often glossed over by

readers) almost compel a conclusion of relatively balanced change. Here, among other things, we have constantly assumed not only full or relatively full employment but constant prices as well. Consequently, the financial structure suggested by the "judgment" model for 1970 would indeed be recognizable in today's terms. Institutions would be larger—growth trends would be selective—but it could not be said that the framework of finance would be vastly different. Let us recognize, however, that the models used here are flexible, in that suitable assumptions with regard to specific issues or problems could be incorporated into the over-all matrix with corresponding adaptations of the relationships.

What is difficult to accomplish is the translation of the economic and financial findings into a framework that would be useful in determining the possible environmental range of monetary policy. The difficulty obviously is the interrelationship between policy and performance. We can state that, with an average level of interest rates higher in the next decade than in the past (1959, our rough base, was the peak of the last 10 years), the climate of policy might be somewhat more restrictive. Yet this glosses over the fact that reserve requirements in all probability will continue to decline and that the rate of economic growth itself (higher in the "judgment" model than was the experience in the 1950's) could bring about higher levels of interest rates.

To put it in another context: the kinds of monetary policies utilized during the decade will be important elements in determining the relative size distribution of the financial institutions in 1970, while the independent forces making for faster or slower growth among the institutions will undoubtedly color the opinions of the regulatory bodies as well. This is again not to suggest that controls over other elements of the financial community besides commercial banks be imposed; it merely highlights the circularity of structures and circumstances.

COMMERCIAL BANKING IN THE SIXTIES

PAUL S. NADLER*
Rutgers University

IF THE TRENDS EMERGING in the late 1950's and in 1960 are not reversed by marked changes in economic conditions or tax and regulatory policy, the commercial banks will not be able to play as important a role in financing the 1960's as they have done in years past. This conclusion is based on the expectation that in all years except those of recession bank deposits will continue to grow at a slower rate than the growth of GNP.

With the commercial banks thus not able to expand as fast as the economy in general, other financial institutions and instruments will expand in activity and function to fill the gap. These trends of change are already developing and appear bound to become intensified in the new decade. With them will come important implications for the economy at large, the banking system, and the money managers.

I. ASSUMPTIONS

1. It seems fair to assume that the expansion of bank deposits will not be hindered by a shortage of bank capital or of gold backing for the increase in the deposit liabilities of the Federal Reserve that bank-deposit expansion will require. The banks will be able to increase their capital as necessary through new stock sales and retention of earnings, while the Congress will allow the national gold stock to back more money than is legal at present if a shortage of gold becomes a roadblock in the way of sound economic growth.

2. It is further assumed that no major war will develop or any other force leading to a drastic increase in federal expenditures. This implies that the private economy will be growing enough without government help to obviate large-scale deficit financing to buoy up economic activity. If this proves true, the federal debt will continue to grow at a slower rate than GNP. This assumption also reduces the likelihood that in the future the monetary authorities will have to provide the banks with enough reserves to buy large volumes of

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government obligations when other investors do not want them. Thus the rapidity of the growth of demand deposits will not be dictated by the needs of debt management but rather by the monetary requirements for sustainable economic growth, as determined by the Federal Reserve.

3. It is also assumed that no basic change will be made in the Federal Reserve Act, that the Board of Governors will remain free of politics, and that quantitative credit controls will remain, with sound debt-management and fiscal policy, the main means of stabilizing the economy and fostering economic growth. This assumes that no new controls will be imposed on the economy or the financial intermediaries.

4. It is further assumed that, while there will be no rampant inflation, inflationary pressures will remain a potential threat during the decade.

This particular assumption is likely to be strongly contested by those who feel that the great productive capacity and intensified competition now in evidence have sharply reduced the potential danger of inflation. But it is this writer's opinion that the problem of inflation has not been eliminated for the following reasons:

a) There are strong "cost-push" forces built up by the bargaining strengths of labor unions and large business firms that prevent price reductions from becoming widespread.

b) The federal government has not been willing to develop the budgetary surpluses in years of good business that are necessary to offset the deficits of recession years and make fiscal policy an effective weapon for economic stability.

c) The service industries are becoming increasingly important in the economy. Yet productivity in this sector is advancing far too slowly to offset the wage increases demanded by service-industry workers. Thus prices of services should continue to rise steadily.

d) Strong political pressures for government support of industries whose price structures are weakening are also bringing reduced downward price flexibility.

e) These factors plus the government's obligation to stimulate economic activity whenever appropriate under the Employment Act of 1946 add up to the conclusion that inflation will remain a problem in the 1960's.[1]

If this is the case, the Federal Reserve will have to continue the restraint on demand-deposit growth that has kept the money supply

1. See, for example, *The Wage-Price Problem* by John M. Clark.

from growing as fast as the economy through the 1950's, despite the marked increases in demand deposits allowed in recession years.[2]

Since 1950 the growth of savings and time deposits has been the main means by which commercial banks have expanded their total loans and investments at almost as rapid a rate as the rise in GNP. This has been accomplished by a gain of over 80 per cent in time savings and deposits since 1950 and only a 21 per cent advance in demand deposits, against the GNP's increase of under 80 per cent. The lowering of reserve requirements and the reduction of excess reserves and vault cash have also been reasons why bank-credit extensions have been able to remain at approximately 37–38 per cent of GNP annually.

But it is doubtful that the growth of savings and time deposits will continue to offset the failure of demand deposits to expand as fast as GNP during the 1960's. First, statistics compiled by the Federal Reserve Bank of New York show that the growth of time deposits since 1945 has been seven times as rapid as that of savings deposits.[3] Since time deposits are more volatile than savings deposits, the funds are more prone to move from banks into direct investments when higher yields are available in the open market. Thus, if credit restraint is necessary during the decade to prevent inflation, the sophisticated investors who hold time deposits are likely to place their funds elsewhere through much of the period.

If Regulation Q is not changed and the banks are limited to paying a maximum of 3 per cent on time deposits, in the face of higher open-market rates, time deposits have little chance of growth. But even if Regulation Q is altered and the banks are allowed to pay higher interest rates, there is a question still whether time deposits can grow. First of all, even with bank lending charges rising, the banks' expenses of operation are rising, too, as they are becoming more and more service institutions. This in itself limits the amount of interest that can be paid on time deposits to attract funds from the open market.

2. Recent studies, such as the Radcliffe Report, indicate that the liquidity of the economy rather than the total money supply determines the amount of spending that can take place. As a result, much study has been directed toward finding means of regulating liquidity through such means as controlling the investment policies of the financial intermediaries. As it is impossible to predict whether increased controls over the intermediaries will be enacted, it must be assumed that the status quo will remain. This leaves the Federal Reserve with no alternative but to use its available weapons and restrict bank-credit expansion in booms in order to offset the growth of near-money and liquidity. In recessions, its approach has been to use caution in letting bank deposits expand; otherwise so much liquidity would be built up as to make credit restraint more difficult in the next boom.

3. "Time and Savings Deposits at Member Banks," *Monthly Review*, Federal Reserve Bank of N.Y., July, 1960.

In addition, banks may be reluctant to raise interest rates on time deposits, as this would be noticed by the general public, and rates on savings deposits might well be forced up too. Moreover, there are many banks that hesitate to accept time deposits at all, as they feel corporations that hold time deposits may decide that they have need for far smaller demand-deposit accounts.

It must be added, however, as will be shown below, that while under present regulations and attitudes time deposit growth should not be large in the 1960's, this is one area in which active efforts by the commercial banks could do much to help stem the present trend toward slower deposit growth.

The picture on savings deposits is by no means so optimistic. Since 1950 the commercial banks' share of total savings deposits in the nation (including time deposits) has dropped from 51 to 40 per cent, while savings and loan associations have increased their share from 20 to 37 per cent. It must also be remembered that the competition for savings deposits has become intense only in the last half of the decade. In the 1960's, moreover, it appears as if the credit unions, too, will be an ever more important factor to reckon with and could well take a sizable share of savings for themselves. Thus, unless the tax laws and regulations which now place commercial banks at a disadvantage in attracting savings are modified, the commercial banks' share of savings-deposit growth appears unlikely to continue to compensate for the slow growth of demand deposits. Already in boom years, such as 1959, growth of bank savings and time deposits has been only half as fast as the growth in GNP. During the 1960's, except in years of poor business conditions, this inability to match the growth of the economy is likely to become the rule of commercial bank-deposit growth.

With both demand and time deposits growing in all but recession years at slower rates than GNP, there is a real question as to how the 1960's will be financed. A quick over-all answer would be that the financing of economic growth will be achieved by the continued growth of the use of near-money and the increased velocity of available demand deposits that this entails. This makes the problem less severe than it might at first appear.

But, even so, it must be remembered that the demand for bank loans will remain high, as many smaller business firms do not have the credit standing necessary for tapping the commercial-paper market or otherwise finding alternatives to bank borrowing. In addition, with the demand for consumer credit expected to rise sharply in the decade, further pressure for bank credit accommodation will de-

velop.[4] Thus the reduced growth in bank deposits will definitely necessitate adjustments in financial practices, alterations in the structure and function of financial institutions, and other effects that will be of importance to the economy, the commercial banks, and the monetary authorities.

II. Implications for the Economy

One of the most important developments that should occur if the assumptions of this paper prove true is that the spread between open-market interest rates and bank credit charges will continue to be wider than was the case in the 1950's. This might develop through higher direct bank charges for loans relative to open-market interest rates, or more likely it may come in the form of higher compensating balance requirements.

This trend has emerged, as bank charges have been far less sensitive on the downward side than open-market rates because of the relative strength of loan demand in the face of a sliding economy. With deposit growth expected to be relatively slow in the 1960's, the banks should feel the pressure of loan demands even more strongly as the economy grows. Thus the disparity in interest rates between bank charges and open-market rates should remain wider than in past years.

With the disparity in interest rates should come an intensification of the growth in the use of commercial paper and bankers' acceptances as a source of funds by those companies able to utilize these instruments. By August, 1960, the volume of commercial paper outstanding had already reached an all-time record, while the volume of acceptances outstanding at that time was the highest since January, 1930. The maintenance of a wider gap between bank lending charges and open-market interest rates should provide even greater incentive to avoid bank borrowing through the issuance of open-market paper and may well restore the commercial-paper market to the relative importance it had in the 1920's.

Of course, for the volume of commercial paper, bankers' acceptances, and other open-market instruments to rise markedly without boosting interest rates sharply on these instruments, the demand for such securities will have to rise. If the assumptions of this paper prove true, this increased demand is also likely to develop. For with

4. Predictions of consumer credit outstanding in 1970 range from the $84 billion figure of J. Andrew Painter, vice-president of the First National City Bank of New York, to the $107 billion total predicted by Arno H. Johnson, senior economist of J. Walter Thompson Co.

a decline in the ratio of federal debt to GNP in the face of the higher cash positions desired by non-financial corporations as sales grow, the growth of financial intermediaries, the large amount of foreign money being maintained in short-term dollar claims, and the rise in direct investment by individuals, a greater demand for liquidity instruments could well develop.

Thus, unless the Treasury allows the portion of the federal debt consisting of short-term securities to rise much further, there will be many holders of funds looking for just such liquid instruments as commercial paper, bankers' acceptance, and other forms of open-market paper.

In 1959, only 335 qualified firms sold commercial paper through dealers, as compared with nearly 4,400 in the 1920's, and such borrowers have not exceeded 450 in number in any postwar year.[5] In small part this has been caused by the ability of the strongest borrowers to sell their paper directly to the public. But in the main the decline in number of borrowers has been caused by an inability to tap the open market for lack of a financial reputation, a shortage of buyers for commercial paper, or the lack of need due to ready bank accommodation without too much rate disparity. Now with funds more available because of the lessened absorption into Treasury instruments and the rising volumes of investable funds, there will be more incentive to sell such paper. The commercial-paper market and the other impersonal short-term fund markets should thus grow as those companies strong enough to tap open-market funds try to lessen short-term borrowing costs by turning away from bank credit when possible. The development recently of financing subsidiaries of several companies able to sell commercial paper directly points up this trend.

An additional result of the developing shortage of liquidity instruments and the growing availability of short-term open-market funds is likely to be more attempts by states and municipalities to sell their obligations as vehicles for liquidity. While the federal debt is not likely to grow as rapidly as the economy, there is every indication that the state and local governments' burdens are rising rapidly and that the volume of securities they sell should continue to expand.

In the future, then, as states and municipalities see other borrowers obtain lower rates by tailoring their borrowings to serve as liquidity instruments, there should develop attempts by these public

5. "Use of Commercial Paper to the Fore," *Monthly Business Review*, Federal Reserve Bank of Cleveland, October, 1960.

bodies to do the same. Thus, when yield levels are high, greater reliance may well be placed on shorter-term obligations and on dollar bonds of single maturity date, whose market is usually broader than that of serial obligations.

Additional efforts at making municipal bonds more marketable and liquid may also include greater use of joint borrowing, under which several communities or school districts combine their borrowing authority to develop a better-rated obligation and larger issue. Whether the need for more marketable municipal bonds to serve as liquidity instruments will be a spur to the metropolitan government movement, however, is hard to predict.

Another effect of the lessened ability of the banks to accommodate all potential borrowers will be a further expansion of the financing of smaller companies by their larger suppliers in the more competitive industries through more liberal credit policies on accounts receivable. Since the larger companies are certain to have greater access to open-market borrowing, this practice may thus become a way for the smaller companies to replace bank loans with open-market financing, despite their own inability to tap such fund sources. The inability of the smaller firm to obtain lower borrowing costs through the open market may also serve as an incentive to merger.

A further result of the increased disparity between bank rates and open-market interest rates is likely to be intensified efforts to provide small business with needed funds through extension of the Small Business Administration's role in finance and through other governmental aids. Such developments are really means of tapping the open market through the use of the federal government's credit standing when the potential borrower cannot tap these funds on his own.

Finally, with business loan demand high and banks unable to satisfy all legitimate demands because of slowed deposit growth, there is bound to be a rise in the attempts of savings and loan associations, mutual savings banks, credit unions, and other financial institutions to increase their role in providing such credit. In the past, business credit issued by savings and loan associations especially has generally been provided with real estate liens as security. Thus, unless investment policies and regulations are changed and they are granted new powers, this is likely to remain the main way in which additional business credit will be granted.

Naturally, all these reactions to a disparity between bank lending charges and open-market interest rates should go a long way toward

countering the disparity as borrowers turn from the banks to the open market. But with the countermovement of the gap between rates will also have come the above-mentioned changes in financial practices and instruments. The financial sector and even a few non-financial elements of the economy will thus be affected by the slowing trend in bank deposit growth in the 1960's. Naturally, the effects on the commercial banks themselves will be even more intense.

III. Implications for the Banks

The velocity of money has risen markedly since the end of World War II, first as the liquidity built up in the economy during the war was slowly used up and then as business tried to offset the effects of the tight-money policies of 1955–57 and 1959–early 1960. This speedup in the velocity of money has been facilitated by the expansion of commercial paper and acceptances outstanding; by the rise in non-financial corporations' holdings of Treasury bills, bank time deposits, and other forms of near-money; and by the reduction in the size of bank demand-deposit balances of the corporations making more effective use of their cash. Already, then, the banks are doing more work for the deposit dollar than was the case in years past. And with the rise in the use of open-market instruments expected in the 1960's, the velocity of money would have to rise further. It is doubtful whether the rise in velocity from here on can match the pace seen in recent years, but further work for each dollar of demand deposits held appears destined to befall the banks in the 1960's.

Part of this continued expansion of velocity can be attributed directly to innovations that the banks have developed in their effort to attract deposits. New services, such as lock box operations and faster collection of checks, will help to speed velocity even faster. Installation of automation equipment in non-financial corporations will also bring more efficient cash utilization and increase deposit velocity.

The merger movement in the banking industry has also served to increase velocity, for it has enabled many corporations to cut down on the amount of cash kept on deposit at commercial banks. Large corporations often maintain deposits at each major bank in their headquarters' cities and in prime financial centers, in order that they can obtain all the financial services available. Many correspondent banks also maintain duplicate deposits at banks in large financial centers for the same reason. The bank-merger movement, particularly in large centers, has thus given these corporations and cor-

respondent banks a chance to receive all the services formerly obtained while maintaining smaller amounts on deposit as compensation.

In the area of individuals' deposits the banks also are finding some disturbing trends. The growth of check-credit plans has enabled many individuals to command funds at will and draw checks without actually having funds on deposit. Thus there is a real question as to the adverse effect of these plans on bank-deposit growth.[6] The expansion of instalment credit has also reduced the necessity for bank deposits and appears to be a factor in the ability of individuals to get along with less dollars on deposit and faster turnover of each dollar.

Deposits now held to facilitate credit accommodation, however, should not be reduced greatly, despite the further growth of commercial paper, bankers' acceptances, and other open-market instruments as a source of funds for large corporations. Corporations are always anxious to backstop open-market borrowing with bank lines of credit for those periods when open-market fund sources dry up, so bank deposits are not likely to be cut further solely on account of a greater usage of open-market paper. True, the bank deposit will serve as a sort of insurance policy, but it will be a bank deposit. To this extent, at least, the trend toward lesser deposits and greater turnover will be stayed.

On balance, though, it appears that the developments in the banking industry will lead to an even faster rate of turnover of deposits than at present and that the Federal Reserve will have to offset the effects of this by limiting deposit growth more than would otherwise be the case. And, while this restriction on deposit growth in the face of strong loan demands will be hard enough for the banks to bear, if past experience is any judge, the banking system will also be faced with pressure from their customers and the general public because of their inability to satisfy every legitimate request for credit accommodation in periods of active credit restraint.

IV. What the Banks Can Do about This

By and large, the banks cannot prevent the trends that slower deposits growth is bringing, as they are the result of legal provisions that give tax and regulatory advantages to mutual savings institu-

6. See, for example, E. Sherman Adams, "Measures To Sustain Banks' Profit Position," *Commercial and Financial Chronicle*, December 10, 1959.

tions and the use of pressure on bank reserves as the main means of instituting controls over the business cycle.

There are, however, a number of approaches that banks are beginning to use or can develop to offset some of the effects of the current deposit trends. One reaction that appears certain to continue is the movement toward higher loan to deposit ratios. The average loan to deposits ratio of all member banks has already grown from 34 per cent in 1950 to 58 per cent in 1960 and has even reached just under 70 per cent in the large New York City money-market banks.

To be sure, the growth of the ratio will be furthered by the reductions in reserve requirements that should be approved as the banks and the economy expand, but basically the greater emphasis on loans will be necessary to satisfy as much of the loan demand as possible and get the highest possible return. Also with open-market interest rates farther below loan charges, banks will have less incentive to keep investments except as a basic liquidity reserve. The banks will thus become basically lending institutions again as they were in the 1920's.

A further development may well be the channeling of savings funds into business loans and consumer loans instead of mortgages and other longer-term investments. This would certainly violate the current trend of many banks in asset allocation. But the use of time-deposit funds for business loans would lead to a creation of sorely needed demand deposits through the compensating balance requirement, while this modification of asset-allocation procedures would also achieve an extremely important goal—the satisfying of as much of the legitimate demand for bank credit for business as possible. In this connection, Reserve Board Governor A. L. Mills's warning that banks must fulfil their short-term community lending duties was a comment meriting utmost consideration.[7]

Since the banks will do more work for the deposit dollar, it seems logical that bank fees will rise. But, in the face of traditional limits on bank lending rates, it is likely that more banks will increase their charges through higher compensating balance requirements or advanced service charges than through actual loan-rate hikes. More reliance also will probably be placed on standby fees charged those wanting to use the open market to borrow but desiring also the assurance that bank credit will be provided if funds available

7. A. L. Mills, "Past, Present, and Future," *Commercial and Financial Chronicle*, November 12, 1959.

through the commercial-paper market decrease temporarily. With bankers' acceptances at their highest level in almost 31 years, the commitment fees charged by the banks on this type of paper will also grow as a source of bank income.

Banks are also increasingly becoming service institutions—providing check reconciliation, payroll preparation, freight-payment plans, trust work, mortgage origination and servicing, and other services for their customers. This is being done for several reasons. First, it is a way of stimulating deposit growth and inducing customers to maintain higher deposit balances; second, it is a way of finding additional uses for automation equipment to justify further its acquisition or rental; third, it is a way in which banks can obtain earnings without having to convert deposits into earning assets. In fact, this trend toward operation as service institutions may well be the stimulus to further bank mergers, as smaller institutions find themselves unable to afford the provision of services that competitors are offering or the automation equipment needed to remain competitive.

It has been predicted that, by 1970, some banks will even be paying regular monthly bills for their customers—deducting from the depositor's account each month his insurance premiums, utility bills, car payments, and goods and services bought with a central charge card. It may also be unnecessary for the depositor to handle his paycheck; his salary may be deducted from his employer's account and credited to his.[8] Banks' preparing of accounting reports for small business may also be common before the decade is over.[9]

As far as the problem of time deposits is concerned, there is not too much the banks can do while under Regulation Q. The Reserve Board limits the interest they can pay to 3 per cent, and competitive investments can offer more. The larger banks have been trying to attract foreign dollar holdings at their foreign offices, and, because they can offer higher interest abroad than at home, they have been rather successful in attracting "Eurodollars" and other foreign deposits.[10]

8. *1959 Annual Report,* Federal Reserve Bank of Boston, p. 43.

9. "How Banking Tames Its Paper Tiger," *Business Review,* Federal Reserve Bank of Philadelphia, May–July, 1960.

10. The New York Clearing House Association in its July 20, 1960, *Report to the Board of Governors of the Federal Reserve System* entitled "A Study of Regulation Q as it applies to Foreign Time Deposits," has pointed out, however, that foreign depositors prefer to place their funds directly in the United States to avoid the risk of exchange control and governmental jurisdiction in the country where the branch is located. They also feel that deposits in the United States give them a direct relationship with their source of credit and other facilities and services available in the Ameri-

At home, moreover, an increasing number of banks are becoming receptive to corporate time deposits, and fewer institutions are refusing to accept them. By issuing negotiable certificates of deposit and paying the maximum rate allowed for short time periods under Regulation Q if the corporation must withdraw its funds unexpectedly, the banks are trying to make time deposits as fair an instrument of liquidity as possible.

As has been shown above, there are a number of problems involved in attracting time deposits that would exist even if Regulation Q were not limiting interest to 3 per cent. Yet, with the ceiling lifted, there is one avenue through which deposit growth could be pushed if banks were willing to adapt their operations to suit the financial needs of the large institutions that maintain time deposits and if they made every effort to offer as high an interest rate as possible.

It would appear, however, that, without the removal of the 3 per cent interest ceiling, the job of increasing time deposits will be far harder. This conclusion is reinforced by the indications that some savings and loan associations are now working to attract large share purchases for specific periods of time in competition with bank time deposits.

Furthermore, savings and loan associations, mutual savings banks, and credit unions maintain advantages in tax status, liquidity requirements, and regulatory control. Thus the principal way remaining by which commercial banks can increase their share of savings and time deposits is by stressing the advantages of one-stop banking, pushing new services such as in-plant banking that can attract savings deposits, and actively promoting time deposits despite the rate disadvantage by taking advantage of the prestige factor that comes with being commercial banks.[11] Naturally, if the growth of mortgage mutual funds, under the new federal mortgage trust law passed in August, the secondary market for mortgages, and the other measures currently being proposed to broaden direct investment in home liens lower the yields available on mortgages, the commercial banks will be in a better position to compete with other savings institutions on a rate basis. But with the high demand for homes expected in the

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can market. Since some foreign depositors refuse to place funds in overseas branches but prefer to deal directly with an American bank or else place their funds in other investments, Regulation Q does prevent maximum growth of foreign deposits in United States banks, even if overseas branches help them offset Regulation Q to some extent.

11. See Alhadeff and Alhadeff, "The Struggle for Commercial Bank Savings," *Quarterly Journal of Economics*, LXXII (February, 1958), 1–22.

late 1960's as family formation increases, such a decline in net mortgage yields relative to returns on other investments appears unlikely.

Finally, there is the capital question. In an effort to preserve earnings in the face of more rapid deposit turnover and slackened deposit growth, the banks may try to operate with less capital as a means of preserving earnings per share. With lesser reliance on long-term investments, the banks may feel that traditional capital standards are too rigid. This is especially true when the large amount of hidden capital included in valuation reserves is considered.[12] On the other hand, with lesser holdings of investments and higher loan to deposits ratios, there appears little likelihood that banks will be allowed to operate with lower ratios of capital to risk assets.

Thus the efforts of the banks to offset the effects on earnings of higher operating costs, slackened deposit growth, and higher deposit turnover will have to be concentrated in the movement toward the provision of more services. With all these developments, the changes in banking during the 1960's should have important effects on the credit-control structure as it now exists and on the powers and actions of the monetary authorities.

V. The Effects on Credit Control

The first question concerning credit control is the problem of regulating the economy through controls over just the banks when the banking system is steadily playing a less important role in the economy except in recession years. Certainly the requisite level of spending in the economy can be achieved through controls solely over bank credit even when the amount of near-money in the economy has risen sharply. But the extra pressure that would have to be placed on bank reserve positions to offset the liquidity of those holding near-money would make quantitative credit controls much harsher on potential borrowers dependent on banks and not able to tap the open market or funds in other financial institutions.

The result of this could be one of two developments. The Federal Reserve could realize that the amount of restraint on the bank sector of the economy necessary to offset the liquidity elsewhere would be too harsh on bank customers to be feasible, either politically or due to a fear of too much hardship in bank-dependent sectors of the economy. This would make credit control less effective as a deter-

12. The Marine Midland Corporation has reported that its valuation reserves are equivalent to an additional 27 per cent of capital not shown in book value (remarks by Baldwin Maull, president, Marine Midland Corporation, before institutional investors, Boston, October 6, 1960, and Chicago, October 7, 1960).

rent to spending. Otherwise, the Reserve authorities could go ahead and offset the continued spending elsewhere that liquidity would allow by pressing down harder on the bank sector of the economy. Because the controls would be imposed on a smaller percentage of the economy, though, they would have to be more severe than has been the case in the past. This could well lead to greater swings in bank net free reserve positions and bank demand deposits than have been witnessed during previous business cycles.

But the banks will be operating more as lending institutions than as investors. So, to the extent that open-market interest rates are determined by total demand and supply rather than by marginal movements, interest-rate movements will be less dependent on bank demand for short-term investments. Consequently, the sharpness of fluctuations in open-market interest-rate levels should not become greater, even though the banks should experience greater swings in their lending and investing capacity.

A further development may be an increase in the importance of the rediscount window. This could come about for two reasons. First, with the banks less liquid and serving more as lending institutions, they will be less able to adjust to heightened credit restraint by selling securities. Furthermore, 50 per cent of the government securities held by some banks have already been pledged against deposits of governmental bodies and thus cannot be sold to adjust for reserve deficiencies.[13] When securities pledged against rediscounts from the Federal Reserve are considered, the ability of banks to adjust their reserve positions by selling governments becomes even slighter. This by itself would make the banks more dependent on the rediscount window.

But, additionally, if the banks are so short of government securities that they again are forced to rely on other types of paper to secure their borrowings from the Federal Reserve, the acceptability requirements established by the board could well make the rediscount policy an effective qualitative control over bank lending decisions.

Finally, because of the declining ratio of government securities outstanding to GNP and the consequent need for new liquidity instruments, the Treasury may be able to rely more on short-term obligations for debt management in boom periods without inflationary consequences; for, with non-bank investors more anxious to

13. "N.Y.C. Bankers See Need To Ease Rules on Preferred Deposits," *American Banker*, October 11, 1960; "Simmons Cites Credit Benefit to Nation, Savings Hold Key to Commercial Bank Growth," *New York State Banker*, October 17, 1960.

buy and hold short-term governments, because of the need for liquidity instruments, the Treasury will be less dependent on bank purchases of short-term obligations in boom periods. Thus the Federal Reserve will not have to temper credit restraint from time to time just to provide banks with the reserves necessary for such purchases. If recent experience with debt management is any indication of future policy, it is doubtful whether the Treasury will want to sell many short-term securities in boom periods. But if interest rates rise enough that the 4¼ per cent ceiling on interest payable on new Treasury bonds again becomes a determining factor in debt management or if the Treasury turns to less sound debt-management policies, this ability to sell more short-term maturities to non-bank investors will be important in reducing the probability of inflationary consequences. These are likely to be some of the implications of the emerging trends in commercial banking.

There appears to be no question as to whether the 1960's can be financed adequately; for if adequate funds were not available elsewhere to provide for sustainable economic growth, the monetary authorities would quickly be able to cure this by more generous easing of bank reserve positions with its consequent expansion of bank deposits.

The questions thus center on why the monetary authorities may have to restrict demand-deposit growth to stabilize the economy, what institutional and structural reactions would result from an inability of bank deposits to grow as rapidly as GNP, and what changes in tax and regulatory policy would be instituted in the face of these developments.

While there is no likelihood that the economy as a whole would be hurt by a slowing in commercial bank-deposit growth, customers now mainly dependent upon commercial banks for credit will most likely have to adjust to changed conditions.

But, in the main, as this paper has tried to show, the problems emerging in the new decade as the result of the slower bank-deposit growth trend will mainly affect the commercial banks themselves.

Unless the banks are able to effect major tax and regulatory changes in the 1960's, they will have to face conditions that differ sharply from those of recent years. Their ability to adjust to these changed conditions and to undertake the opportunities for profitable service work that are developing in banking will reveal much about the role the commercial banking system will play in the economy when this decade is over.

DISCUSSION

CARL H. MADDEN:* My comments on the paper "A Financial Framework for Economic Growth" are general and consist of three propositions. First, the paper is a highly significant effort, boldly conceived and executed. Second and paradoxically, because of its clarity and ingenuity, it reflects the primitive state of the forecasting art. Third, the paper illustrates our need in business and financial projections to reshape our forecasting concepts and to support scholarly efforts such as this with far greater resources.

1. Without question, Kavesh and Mackey have done a pioneering job in trying to project the future role of financial institutions in United States economic development. Not only is the effort well conceived, it is also highly relevant. In the critical decade of the 1960's, our profession in the free world faces a mortal test, whether we like it—indeed, whether we recognize it—or not. We have been challenged in the friendly field of economic competition, and the test is that of leadership in showing the way to economic development. If we aren't abler and more skilled than the Communists in economic growth, we may well be buried.

This means, for one thing, that we must improve the efficiency of economic policy measures at home, and to do so requires more intensive efforts to anticipate and provide for financial requirements of growth. Regarding the need for more efficiency, the Wriston Commission confirmed the election results showing that the American people are not satisfied with the efficiency of economic policy-making. We may, if we wish, cast the blame for too much unemployment and too slow a growth rate on the Federal Reserve authorities, but in a deeper sense we implicate ourselves and the state of our ignorance or the irrelevance of our interests, whichever fits your diagnosis. Hence, by facing the hard question of financing requirements for economic growth, Kavesh and Mackey have wisely invested their time and professional skills in a vital subject, to their considerable credit.

2. Turning to methodology, the method is simple and ingenious. Briefly, the authors, in searching for a financial counterpart to a projected 1970 GNP, used the historical relation of Gurley and Shaw's so-called *primary* securities outstanding to the GNP in years

* Lehigh University.

of peak employment to find a ratio, approximately 2.5 times, which they used to extrapolate from the 1970 GNP to 1970 total of primary securities. From such total of primary securities the authors then inferred projected balance sheets of financial institutions and the projected state of the capital market in 1970 that followed from their assumptions.

To say a word about results before commenting on method, the numbers and trends derived from this paper deserve and will receive considerable attention. There are projections of balance sheets in 1970 for all the major financial institutions along with knowledgeable accounts justifying the authors' judgments. The accounts themselves will also be carefully studied for the insights and intuitive understanding of the institutions which they reveal. In such wise this paper is and will be recognized as a landmark and represents no small accomplishment, to say the least, on the part of individual scholars working with limited facilities.

This is why, to turn back to method, my remarks now have reference to the present state of our knowledge as economists and not to the ingenious work of Kavesh and Mackey. After all, they could have mystified us with projections of flows of funds or could have intimidated us with optimum solutions of innumerable simultaneous equations in a burst of linear programing. To their great credit, they did not. On the contrary, their method rests upon a simple projection of an empirical relation discovered between primary securities and economic activity.

3. The very proper simplicity of this approach reflects the primitive state of our art, as I am sure the authors would be first to acknowledge, and illustrates the need for us to reshape our forecasting concepts. Our ultimate objective in making forecasts is not to predict the future absolutely. This is manifestly impossible. Yet, having said so, we economists often act as if predicting the future absolutely is an everyday affair with us. No wonder we confuse ourselves and others. Models are not primarily for predicting future events. Engineers have never used them for this purpose. Models are for displaying the general performance characteristics of a system. The goal—and it should be our goal—is to design better systems, not to beat the stock market or "predict" the amount of securities in 1970.

Our subject matter is so complex that Max Planck, the great quantum physicist, abandoned it as too difficult. Yet today we may be on the threshold of a revolution in methodology that would

justify use of even Planck's great analytical powers in our field, and that stems from electrical engineering advances in feedback theory and electronic digital computers. If we are to improve policy-making in any meaningful way, we are going to have to learn a great deal about these methods very fast. Whenever I hear learned and responsible people pooh-pooh computers, I shudder at their audacity and lack of awareness. No one expects a computer to be appointed chairman of the Board of Governors, but many people expect better results from Federal Reserve and other policy actions if we are to survive. Everyone knows that today there is no scientific way of appraising monetary-policy actions, despite oceans of verbiage on the question. Sooner or later, and I think sooner, we are going to have to be able to put our central bankers and our Council of Economic Advisers to the test.

I have time only to say that we should be financing the building of complex models of our economic system based on non-linearity, closed-loop feedback of information, instability, and lack of equilibrium. These efforts should be financed on a very large scale with teams of researchers, so that a Professor Kavesh has the assistance of engineers, of statisticians with mathematical sophistication, and even of policy-makers. We should derive many different results for a decade based on changing certain performance characteristics of our system, such as monetary-policy tools, or laws regulating capital markets or our method of financing education. Without trying for specious, oversimplified optimum solutions, we should be making scientifically based proposals for changing the system to achieve better results in economic performance. We should be setting theoretical goals and targets and computing the results, under given performance characteristics, of attempts to achieve such goals. These results should be made available to the public, so that consequences of changes might be evaluated by the public.

Jay W. Forrester of M.I.T. recently traced the exponential growth rate in the power of computers to simulate complex multivariate systems—not, mind you, to speed up computation or to search for specific facts or to do any of the individually trivial things which computers can in fact do with blinding speed—but to simulate the essential structure of complex systems operating in the real world. In 1935 systems of 2 variables could be handled. By 1945 systems of 20 variables could be handled. By 1955 systems of 200 variables could be simulated. By 1965 "models of 2,000 variables with no restrictions on representing non-linear phenomena put us within a

vast area of managerial and economic questions," says Forrester. He fully expects the factor of 10 to continue operating to expand the power of computers in the future.

Ask yourself. "How many banks, insurance companies, etc., are really vital in capital-market decision-making results at the national level? Just how hard would it, in fact, be to make a more or less literal model of the wholesale money market?" I myself believe the effort of attempting to do so would justify investment of much more resources. Three minutes of computer time means solving a system of 100 variables for 1,000 successive time steps for automatic programing, running, and generation of plotted and printed information. Yet neither the Federal Reserve nor the Council of Economic Advisers has a computer actually working on simulating parts of our economic system.

The Ford Foundation has demonstrated great wisdom in spurring efforts to master the computer. In my opinion it is the microscope and telescope of economists, and we must move fast to explore its vast implications. I think that Dr. Kavesh and Mrs. Mackey move us along this road in their excellent and pioneering effort by devoting their attention and considerable skills to a vital problem that should be more amenable to intensive attack.

JOHN A. COCHRAN:* The major emphasis in Professor Nadler's paper is on the over-all growth of the commercial banking system in the decade ahead as compared with growth in GNP. Nadler concludes that, as has been true in the last decade, commercial bank deposits will *not* grow as fast as GNP, thus leading to the conclusion that other financial institutions will necessarily grow more rapidly than commercial banks. Also, it is expected that the velocity of money will further increase as a result of the lagging growth pattern of commercial bank-demand deposits. Various specific assumptions are made, of course, in order to arrive at these general conclusions.

In general, I find this a very stimulating paper with which I am in major agreement. Perhaps the most fundamental criticism is that the title of the paper suggests a scope of topics which would be virtually impossible to cover in a paper of this length. Hence certain important topics have been omitted or dealt with in a brief manner. For example, the important merger movement in the banking industry, which is likely to continue throughout the 1960's, is

* Southern Illinois University.

mentioned only once and then in connection with the increased velocity of money. Recent important bank mergers in New York, Chicago, Philadelphia, and St. Louis, as well as the new branch-banking law passed in March, 1960, in the state of New York, suggest that changes in the competitive structure of the banking industry itself deserve the careful attention of the student of banking, as well as the competition between banks and non-banking financial insitutions. The total number of commercial banks declined by 647 from the end of 1950 to the end of October, 1960. Most of these unit banks were absorbed into other banks. This "urge to merge" seems to be national in scope and is likely to be with us for some time to come. There are, of course, important public policy questions in this area.

Similarly, the redistribution of banking services to follow the dispersion of population is not even mentioned. A paper published by Dartmouth College in July, 1960, on "The Changing Structure of Commercial Banking" by George E. Lent pointed out that in 1940 the East, including New England and the Middle Atlantic states, held about half of the nation's banking deposits, while now they hold only about a third. New York City's share (excluding United States government and interbank deposits) fell from 28 per cent in 1941 to 20.1 per cent in 1945 and to 14.3 per cent in 1959. New York City held about 40 per cent of all interbank deposits in 1941, but only 20 per cent in 1959. It seems likely that this westward movement of banking services will continue in the 1960's, as doubtless will the movement of banking to the suburbs, so as to service customers located there.

It might also have been useful to have discriminated between city banks and country banks in discussing lending and investing policies of banks. As is well known, city banks tend to have zero excess reserves, while country banks, on the other hand, typically tend to carry excess reserves. The result of this important difference in institutional behavior is that when the Federal Reserve is deciding upon and carrying out a given monetary and credit policy at a given point in time, it has to consider where the given amount of excess reserves is located, as well as the total of such excess reserves.

One of the key assumptions made by Nadler is that, because of the expected continuance of inflationary pressures in the 1960's, the Federal Reserve will mainly be pursuing credit-restraint policies. Although the assumption of credit restraint for most of this decade has some aura of plausibility, given the inflationary assumption, it

ignores the increased attention being given to public policies needed to promote economic growth. Nadler also argues that the velocity of money will increase, even though the stock of money does not increase very much. A careful student such as Lawrence Ritter, however (*American Economic Review,* March, 1959), argues that there are "some pragmatic grounds for believing that present limits to [income] velocity are closer to an annual rate of about $3\frac{1}{3}$ rather than the peak of 4 times per year reached in the 1920's."

To the extent that the ceiling theory of velocity is accepted by the Federal Reserve authorities, it might be expected that credit restraint in the decade ahead might be applied quite gingerly and with much hesitation, lest the brakes be put on too hard.

The lack of growth in the publicly held federal debt in the post-war period, at a time when GNP was growing rapidly, also has meant, in the opinion of many, that we have "grown up" to our large federal debt. It is the federal debt, of course, which furnishes most of our near-money. With this point in mind, it might well be argued that the Federal Reserve would permit, or even encourage, a more rapid expansion of bank deposits in the decade ahead than in the previous decade. Even so, it is quite likely that Nadler is right in asserting that non-banking financial institutions will probably grow at a more rapid rate than commercial banks.

THE OUTLOOK FOR THE CAPITAL MARKETS

MONETARY POLICY AND THE MONEY MARKET*

ROY L. REIERSON
Bankers Trust Company

I. FACTORS IN THE CREDIT MARKETS IN 1960

THE CREDIT MARKETS in 1960 were shaped by the following five strategic developments.

1. Shortly after the turn of the year, business expectations began to weaken and inflation psychology to subside. The persistent weakening in housing starts, the prospect that business investment would top off in 1960, and the evidence that the poststrike rebuilding of business inventories would be of smaller proportions than had originally been surmised all contributed to a feeling of caution with reference to the business trends in the latter part of the year. Also, inflation psychology was weakened by such factors as the lack of ebullience in markets and the large amount of industrial plant capacity, which made it difficult to increase prices; the terms of settlement of the steel strike, which were generally interpreted as connoting some slowing-down in the wage-cost price spiral; the substantial stability in important comprehensive price indexes (see Chart 2) and the downward pressure on prices of industrial raw materials; and the pronounced improvement in the Treasury's budget position. Associated with these changes in expectations was the weakness in common-stock prices in 1960.

2. Industrial activity leveled off in the first half of 1960, following the immediate poststrike bulge, and sagged thereafter (Chart 1).

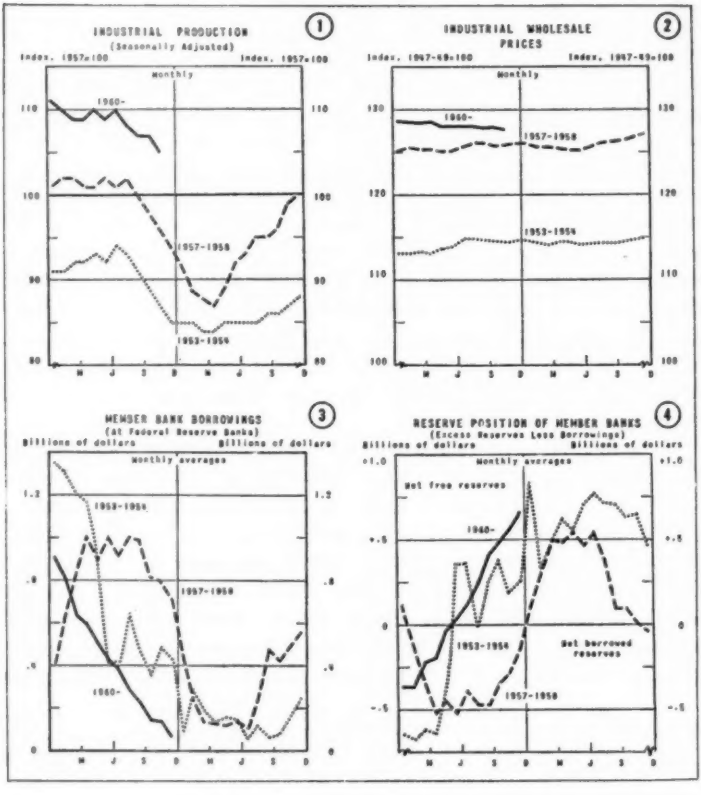
3. The Federal Reserve early in 1960 began to ease credit and carried out this policy over the year through a broad program involving open-market purchases, lower discount rates, and reductions in reserve requirements. The Federal Reserve made the shift in the direction of easier credit *before* there was evidence that business activity had topped off. The moves toward easier credit began early in the year, while clear-cut signs of an easing in industrial

* This paper and the following papers by Saul B. Klaman, B. U. Ratchford, George T. Conklin, Jr., and Robert P. Mayo were presented at a meeting of the American Finance Association held in St. Louis on December 29, 1960. The meeting was under the chairmanship of James J. O'Leary, Life Insurance Association of America.

production did not become apparent until after midyear; the present thinking seems to be that the cyclical peak may have been reached about May, 1960. The timing of credit policy in 1960 was better than in 1957, when moves toward easier credit did not appear until several months after the peak in business activity.

The shift in credit policy was reflected promptly and unmistakably in two of the important measures of credit conditions, namely, member-bank borrowings and the reserve position of member banks. Member-bank borrowings declined steadily throughout the year and, by the end of the year, were down to minimum levels (Chart 3); the net reserve position of member banks eased rapidly—net borrowed reserves disappeared by midyear, and, by the closing months

CHARTS 1–4



of the year, net free reserves had risen to the high range prevailing at the height of the credit ease in 1954 and 1958 (Chart 4).

4. The Treasury's financial position improved significantly in 1960, permitting some retirement of government debt. In this year, the publicly held U.S. government and agency debt was reduced by about $3 billion; in 1959, on the other hand, the publicly held debt increased by some $10.5 billion, a record rise for a peacetime year. The conjunction of large private demands for credit and this record Treasury borrowing, concentrated in the short- and medium-term maturities, was responsible for the pressures in the credit markets and the ensuing upward pressure on interest rates in 1959. Smaller private credit demands, accompanied by the modest retirement of government debt, contributed to the easing of credit conditions in 1960.

5. In the latter part of 1960, the pressure on the dollar and the accompanying outflow of gold reached worrisome proportions (Charts 15 and 16). By the end of May, the Treasury bill rate had already declined to about 3 per cent; the reduction in the discount rate in June, at a time when the central banks of other important countries were raising their rates in order to cope with conditions of overebullience in their economies, helped to widen the spread between money-market rates in the American and important foreign markets. The increased attractiveness of foreign markets thus evoked a substantial outflow of funds and put the dollar under pressure. The sag in the American economy and the 1960 political campaign also contributed to a resurgence of foreign skepticism of the dollar and to renewed talk of devaluation.

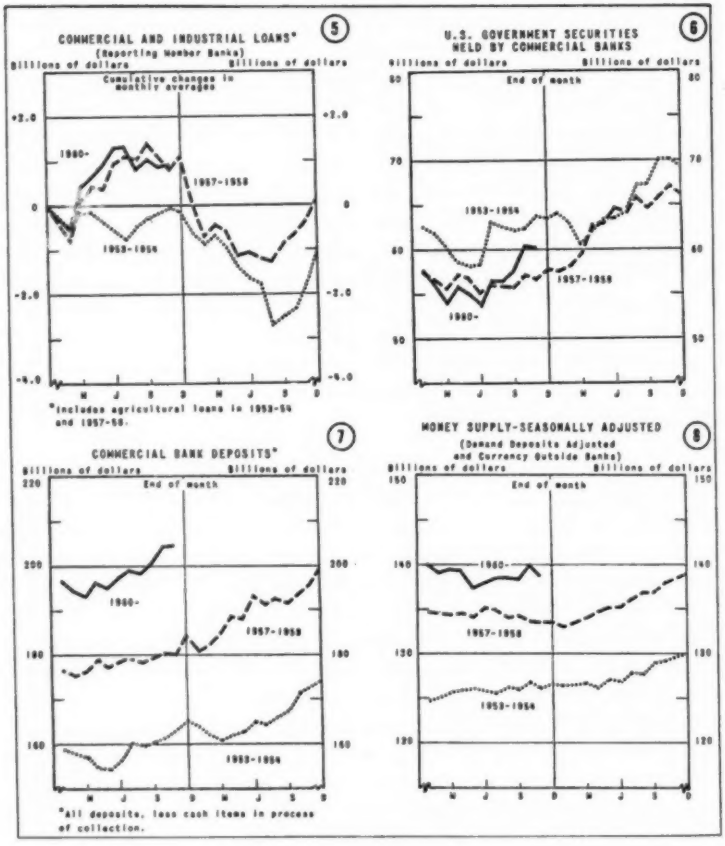
II. Response to Credit Policy

The banking system responded vigorously to the easing of credit conditions in 1960. Although commercial and industrial loans rose sharply in the first half of the year, they leveled off thereafter in response to the sag in economic activity (Chart 5). The behavior of these "business loans" in 1960 was not dissimilar to their behavior in 1953 and 1957. With the easing in loan demand, the commercial banks, beginning about midyear, began to add to their holdings of government obligations at a very rapid rate (Chart 6). Thus total loans and investments of the commercial banking system—a comprehensive measure of the total amount of credit made available to the economy by the commercial banks—increased by about $10 billion in 1960, a rise exceeded only in the recession year 1958 and equaled only in another recession year, 1954.

This increase in loans and investments was reflected in a correspondingly large increase in commercial bank deposits, especially after midyear of 1960 (Chart 7). However, depositors elected to take a substantial part of the increase in the form of time, rather than of demand, deposits, with the result that the active money supply showed a relatively small rise in the latter half of the year (Chart 8). However, liquid assets, defined as including time deposits and shares of savings and loan associations as well, evidenced a sharp rise in the latter half of the year (Chart 9).

In appraising the record of credit policy in 1960, it should be

CHARTS 5–8



kept in mind that the contraction in the economy in 1960 was of smaller proportions than in the corresponding months of the 1953–54 and 1957–58 recessions. The industrial production index so far in the 1960 sag has declined only about half as much as in the corresponding period in 1953–54 and in 1957–58. Moreover, GNP edged downward by less than ½ of 1 per cent between the record second quarter of 1960 and the fourth quarter. Certainly, considering the moderate character of the decline in economic activity, credit policy was used energetically in 1960.

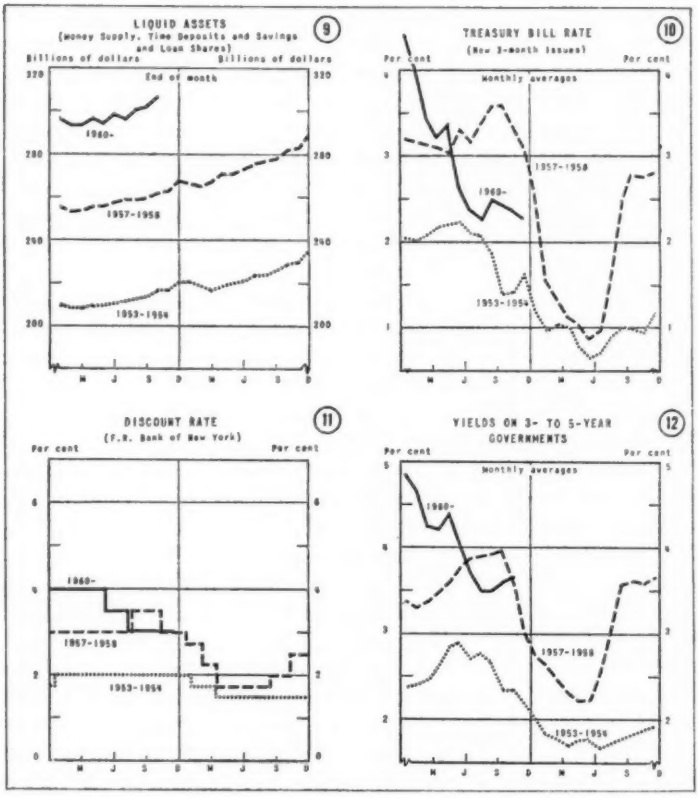
III. Response of Interest Rates

The response of interest rates to the easing of credit in 1960 differed significantly from developments in 1953–54 and 1957–58. The Treasury bill rate declined sharply into the third quarter of last year, a normal reaction to easier conditions in the credit markets; however, after dropping to about 2¼ per cent in August, it leveled off thereafter and remained well above the lows reached in the 1954 and 1958 recessions (Chart 10). The yield on 3–5-year government obligations, paralleling the trend of the Treasury bill rate, also declined sharply into the third quarter of 1960 but since then has fluctuated around a level of about 3½ per cent, again well above the lows reached in the 1954 and the 1958 recessions (Chart 12). The discount rate was reduced twice in 1960, from 4 to 3 per cent, but at the end of 1960 it was significantly higher than at the recession lows in 1954 and 1958 (Chart 11). Moreover, the yield on new corporate utility issues (Chart 14) reacted only moderately to the change in the credit environment last year; yields declined far less than in the two previous recessions. The prime commercial lending rate, too, showed a moderate decrease (Chart 13).

The more modest response of interest rates to the sag in business activity and to the easing in the credit markets in 1960 reflects a variety of factors. Demands for credit, despite the decline in business, were fairly well sustained during the latter half of 1960; consequently, investment officers and commercial bankers were under no real pressure to accede to large interest-rate reductions in an effort to find outlets for their funds. The moderate character of the sag in the economy in 1960 and the prevailing pattern of economic forecasts, which envisaged a relatively mild, rather than a serious, decline in economic activity and an upturn of business activity by mid-1961, also helped to temper the adjustment of interest rates. Investment officers and bankers alike were mindful of the fact that

the earlier postwar recessions had been followed by business recoveries marked by resurgent demands for credit and upward pressures on interest rates. Commercial bankers, in addition, had clearly in mind the difficulties they encountered in trying to meet very heavy loan demands in 1959 and welcomed the easing in loan demands in 1960 as an opportunity to rebuild liquidity and to restore loan-deposit ratios to what they regarded as more comfortable proportions. Finally, the outflow of funds in response to more attractive interest rates in foreign markets reduced the amount of funds available for investment in the American markets and also called the attention of the Federal Reserve to the risks involved in

CHARTS 9–12

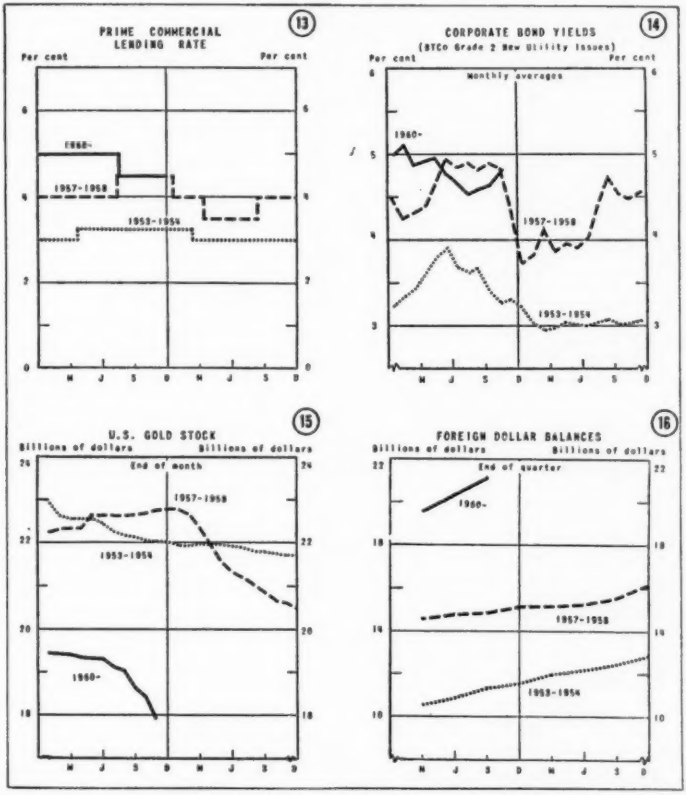


following a credit policy that might mean significantly lower money-market rates and correspondingly increased outflows of funds, pressure on the dollar, and gold losses.

IV. Prospects for the Money Market in 1961

Current trends in the economy suggest that in the months immediately ahead pressures will be operating in the direction of lower yields on long-term investment media, such as real estate mortgages and corporate bonds. However, these downward pressures may be of relatively short duration, and it is doubtful whether they will be transmitted to the money market and to short-term interest rates.

CHARTS 13–16



If the prevailing forecast that the sag is showing signs of bottoming out and will be succeeded by an upturn within the next few months is borne out, the incipient upturn will be accompanied by an increase in the private requirements for credit. In addition, after mid-1961, the Treasury will be in the market as a borrower. Of course, a worsening of economic prospects, should this occur, would in all probability be reflected in further declines in all classes of interest rates.

At the end of 1960, the dollar was still under pressure and, as long as this pressure prevails, it will operate against further declines in money-market rates. Although several European central banks reduced their rates in the closing months of last year, these moves seem to have been dictated more by international considerations than by signs of general weakness in their domestic economies. Also, there are signs of weakness in a few sectors of some foreign economies, but there is little evidence to support the thesis that a general downturn in the European economies is a near-term prospect. And the prevailing levels of rates in American and foreign markets, even after allowance for "covering" the foreign-exchange risk, are such as to make attractive the transfer of funds to foreign markets. A combination of a decline in business activity and interest rates in important European countries and a deterioration of business expectations in the United States would seem to be a prerequisite to significant further declines of money-market rates in the United States.

Obviously, budget forecasts at this time are highly conjectural. Nonetheless, it seems evident that 1961 will show an increase in the publicly held government and agency debt, in contrast with the $3 billion reduction in 1960. Moreover, Treasury borrowing in the second half of 1961 will probably be of significantly larger proportions than in the last half of 1960, and most of this borrowing is likely to be in securities of short- and medium-term maturities. Not only does this auger for upward pressures on money-market rates in the latter half of 1961, but it raises an even more fundamental question, namely, will we experience another conjunction of large private and Treasury borrowing in 1962?

THE MORTGAGE MARKET

SAUL B. KLAMAN
National Association of Mutual Savings Banks

I AM IMPELLED, after a review of 1960 forecasting records, to warn you that any similarity between what is said here today and what actually develops in 1961 may be purely coincidental. Indeed, about 1960 business forecasts, it may well be said that seldom have so few misled so many by so much. And last year's panel on the outlook for money and capital markets was no exception.

The panel was in close general agreement that money would remain tight in 1960; persistent demand pressures in credit markets would cause yields—particularly on short-term securities—to rise to new peaks; the supply of, rather than demand for, credit would continue as the strategic limiting factor in the flow of funds; and, as a result, Federal Reserve policy would remain restrictive through 1960.

I recall these conclusions in the light of recent developments, not in any sense to embarrass their authors, for the cloak of embarrassment falls on our whole economic fraternity. How many among us can say that these firmly expressed expectations of financial stringency in a climate of business buoyancy did not summarize our own views as well? Rather, I recall the statements lest we begin to take ourselves too seriously and as an eloquent reminder that, while we have made progress in our understanding of past and current financial market developments, the formula for successful forecasting continues to elude us.

There is still another reason for recalling our inadequacies in short-term forecasting, namely, to justify my discussion today of a fundamental longer-range question that has lately come in for increasing attention. However, it is only fair at an outlook session to say something about the near-term outlook, if for no other reason than to provide an opportunity for next year's participants to indicate how wide of the mark I was. My views, then, on mortgage market developments for 1961 are summarized as follows:

1. The supply of investment funds seeking outlets in mortgage markets will exceed the demand. This will be a unique situation compared with earlier postwar periods of financial ease.

2. As the flow of saving expands, the downward pressure on mortgage interest rates will continue—at least during the early part

of the year—and the quality of credit will decline as reflected in contract terms and acceptability of borrowers.

3. The actual net flow of funds into mortgage markets will show little change from 1960 and may well decline.

4. Reduced demands for mortgage funds will reflect chiefly conditions in housing rather than in non-residential markets.

I am postulating these developments in an expected climate of financial ease during the early months of 1961 accompanying continued business weakness. In preceding similar economic periods during the past decade, the mortgage market has turned especially buoyant. Lenders aggressively sought mortgages, as alternative investment opportunities turned less favorable. Borrowers appeared readily, anxious to satisfy backlog demands for housing on increasingly liberal mortgage terms which they regarded as especially advantageous. In 1961, however, I am suggesting that, while lenders will react as they have in the past, potential borrowers may not be flushed out so easily. In other words, for the first time in the postwar period, demand may be the limiting factor on the flow of mortgage funds rather than supply.

Such a development would, of course, reflect mainly the achievement of a temporary balance in housing markets—the main source of postwar mortgage flows. Perhaps one of the key lessons of 1960 is that housing can no longer be counted on to play its usual postwar contra-cyclical role in the economy and that, until the population upsurge is upon us in the mid-1960's, housing demand need not always be responsive to the magic hypodermic of ample and easy credit. Supporting this judgment statistically is not possible, but let me list some of the main underlying factors which have led me to conclude that mortgage demand holds the key to the performance of the 1961 mortgage market.

1. Savings inflows to mortgage lending institutions accelerated after mid-1960, and the yield spread between mortgages and alternative investments improved markedly during the year; yet mortgage commitments increased only modestly compared with the sharp rise during 1958 under similar circumstances.

2. Previous periods of marked decline in housebuilding—1951 and 1956, for example—were centered in FHA- and VA-financed units. The 1960 decline, however, was, in terms of number of units, as much in conventionally financed as in federally underwritten units. Inflexible interest rates, therefore, cannot be blamed as the sole reason for the substantial decline in housing starts.

3. Vacancies in the rental housing inventory have been rising

steadily this year to a postwar peak of 7.6 per cent in the third quarter, compared with 6.6 and 5.8 per cent in the comparable quarters of 1959 and 1958, respectively. This trend has been evident as well in completed rental projects insured or owned by the Federal Housing Administration.

4. Less than one million married couples (about 2 per cent of the total) were without their own household in spring 1960, a postwar low, more than one-fifth below that as recently as two years earlier and less than half of the number a decade ago.

5. While the data are not strictly comparable, it appears that housing starts have exceeded the increase in inventory between 1956 and 1960 by a significantly wider margin than was the case between 1950 and 1956. This suggests that the volume of new housing is more dependent than before on withdrawals from the inventory.

6. Market reports and personal interviews indicate that lenders are finding it increasingly difficult to place as large a volume of funds in mortgages as desired, that sale of existing houses have slowed perceptibly, and that the inventory of completed but unsold houses is larger than a year ago.

All these factors suggest that housebuilding and purchases, and hence mortgage demands, will be more vulnerable to general economic decline than in earlier postwar years. So long as consumers remain uncertain about their own and the nation's economic prospects, it will be difficult to entice them from their present housing accommodations. Increased demands for housing, accompanying a general economic upturn anticipated later in 1961, may not be reflected in actual mortgage flows until the end of 1961 or early 1962.

Confronted with a less than buoyant mortgage market and with larger inflows of savings than in 1960, financial institutions are likely to be aggressive seekers of mortgage loans. Alternative investment opportunities will not be plentiful as corporate demands for external financing decline, accompanying the drop in capital outlays and the generation of continued large internal cash flows. Nor is it anticipated that the federal government will be a heavy borrower in 1961. Furthermore, competition for mortgages by new entrants into the market, such as corporate pension funds, will put pressure on traditional mortgage lenders. Thus the quality of mortgage credit may be strained in 1961.

In this setting it is reasonable to expect continued downward pressures on mortgage yields. Such yields, though inadequately measured, have already declined from their peak early in the year, but less than the decline in yields on other long-term investments.

As a result, the spread between returns on mortgages and other high-grade investments has widened steadily during the year. Many observers have expressed impatience recently with the glacier-like movement in mortgage yields, suggesting that the recent experience is unique. It is true that mortgage yields have declined relatively less in recent months than in other periods of financial ease, but so also have yields on alternative long-term investments. As a consequence, the current yield spread between mortgages and government or corporate bonds—taking corporates on a new-issues or outstandings basis—is no greater than it was at the height of monetary ease in 1958 and 1954. The entire structure of long-term yields is considerably higher than in those earlier years.

Because so much confused attention has been given recently, as well as in the past, to the question of mortgage interest rates, I would like to attempt a basic explanation of why mortgage yields do tend to move more sluggishly and in a narrower amplitude than do other long-term yields. This is the basic longer-range question to which I referred earlier. Perhaps the gaps and inadequacies that undoubtedly remain in this explanation can be corrected by other students of the subject.

Markets characterized generally by close pricing are those in which highly standardized commodities are traded. Price is the main point of negotiation. The market for Aaa corporate issues is a good example. Most of the terms associated with public offerings—provisions for callability, sinking funds, and refundability—follow a fairly standardized pattern. In long-term bond issues, furthermore, the question of specific maturity, that is, whether repayment is to be in twenty or thirty years, is of little consequence. Moreover, by definition, the credit of the borrower offering an Aaa series and usually the size of loan are seldom in question.

As we move away from standardized to more differentiated markets and commodities, the number of variables, in addition to price, to be negotiated multiplies. In the market for direct placement of corporate securities, for example, there are more terms to negotiate than in the market for public offerings. The market for residential mortgages is an example of the most differentiated, because few markets are characterized by more one-of-a-kind deals. The credit of each borrower must be established, and "credit worthiness" becomes a function of the relative tightness of capital markets. Numerous contract terms other than price are subject to individual negotiation—down-payment requirements, amortization provisions, contract maturities, prepayment penalties, appraisal values, non-interest

costs, and the like. The nature and location of the particular residential unit securing the mortgage, moreover, are important factors in a mortgage transaction.

All these elements are more sensitive than the mortgage interest rate to changes in financial market conditions. Down-payment and maturity provisions are particularly responsive, as reflected, for example, in the wide swings in the availability of no-down-payment 30-year VA loans between periods of market ease and tightness. The greater responsiveness of such contract terms, compared with that of interest rates, stems from institutional factors also. The "stickiness" of conventional mortgage rates manifests one institutional factor—the local orientation of mortgage markets—in which a "going rate" of exactly 5½ or 6 per cent, for instance, becomes accepted and changes only slowly. In many mortgage markets, furthermore, there is no counterpart of the investment banker, who works closely with the borrower on narrow underwriting margins and achieves fine-drawn pricing through discounts and premiums. The mortgage lender dealing directly with borrowers rarely resorts to basis-point calculations and seldom changes contract interest rates by less than ¼ percentage point and often by not less than ½. Moreover, the fee or premium often paid by a lender to a mortgage broker or originator for "finding" loans does not show up in a yield or interest-rate series, being included as one of the administrative costs. For reasons growing out of market and technical pecularities, therefore, fairly substantial and more prolonged changes in financial conditions are required to bring about changes in mortgage interest rates.

The element of administrative costs has its own place in the relative stickiness of mortgage rates. In general, the larger such costs are relative to the interest rate, the more stable the interest rate is likely to be. The reason is simple: a minimum margin must be maintained between the interest rate and a lender's fixed administrative costs to assure him a reasonable return. The same reason accounts for the high and unvarying rates on consumer credit—high costs of administering a portfolio of consumer loans. Similarly, on residential loans, administrative costs of acquisition, servicing, and record-keeping, perhaps 75 basis points compared to 10 on corporate securities, create a relatively more stable state in residential mortgage interest rates.

For all these reasons, mortgage interest rates have moved more sluggishly and narrowly than bond yields. My own studies and those of Grebler and associates for the National Bureau of Economic Research have spelled out statistically for a long period of years the

mortgage-bond yield relationships implied in this discussion. Inadequacies of data, however, especially on mortgage interest rates and yields, require qualifications of the statistical findings. For the same reason, one cannot be absolutely certain that recent yield changes are following the typical historical pattern. There is some temptation to conclude that the maintenance of unusually high dividend and interest rates to savers, stemming partly from aggressive competition for savings by financial institutions, has kept mortgage yields from falling at a rate comparable to preceding periods. When the record is finally in, this may indeed prove to be a reasonable conclusion. It is possible also that significant differences have developed among the numerous local mortgage market areas between the recent and past behavior of relative mortgage yields. At present, however, objective analysis of data available on a national basis—inadequate though they may be—forces one to conclude that the recent behavior of mortgage yields relative to other long-term yields is consistent with historical experience.

In summary, then, the mortgage market outlook for 1961 indicates little likelihood of a volume of debt expansion approaching the record $19.2 billion of 1959, and, indeed, there is a possibility that net mortgage flows might fall short of the reduced volume of $15.5 billion estimated for 1960. Even if net mortgage lending next year slightly exceeds this year's volume, it will be the first time, in a postwar period of relative financial ease, that the amount of mortgage debt expansion was not significantly greater than in the immediately preceding years. In 1954 and 1958, for example, the amount of expansion was about $2.5 billion and $3.2 billion greater than in 1953 and 1957, respectively.

This changed situation, if it eventuates, will reflect the basically changed conditions which have gradually developed in housing markets. It suggests that increased demands for mortgage funds have, at least temporarily, become more dependent on the offering of increased housing values and improved marketing methods rather than merely on mortgage fund availability and liberalized terms.

For the longer run, we may continue to expect mortgage yields to move more sluggishly and narrowly than other long-term yields, accompanied by the usual observations that this is a unique situation. Nor will the important differences in movements between mortgage and other yields be legislated out of existence. Only when the special institutional arrangements and mortgage market peculiarities are modified significantly can we expect the behavior of mortgage interest rates to change.

STATE AND LOCAL FINANCING

B. U. RATCHFORD
Federal Reserve Bank of Richmond

OVER THE LAST fourteen years there has been a strong and fairly consistent trend in the sale of state and local bonds. Beginning with annual sales of a little more than $2 billion in 1947, sales have risen at an average rate of $475 million per year and have now attained a level near $7.5 billion. There have been declines in only four years, including a small decline in 1960. Recently the curve has shown a tendency to flatten out. The last three years have averaged $7.5 billion, with only small variations from that figure.

The net demand for investment funds by state and local governments is measured by gross borrowings less retirements, which have been rising slowly but steadily. In the past few years the net demand has been between $5 billion and $6 billion. This figure also represents the net increase in the total gross debts of state and local units. Since World War II this total has risen from $16 billion to a level which is now approaching $70 billion.

Sales during 1960 have been slightly below the 1959 level, despite the fact that interest rates have averaged a little lower and have been trending downward. Measured by *Standard and Poor's Index,* interest rates were near 4 per cent at the beginning of the year and are now slightly below 3.5 per cent. Sales during the present quarter will apparently be the lowest for any quarter of the year and at about the lowest level for any quarter in the past three years.

I. THE DEMAND FOR FUNDS

Since World War II, state and local governments have come a long way toward meeting their most pressing and acute needs for capital construction. They financed those operations by using, first, the fairly sizable balance of surplus funds which some states accumulated during the war. Second, they have applied the nearly $75 billion which they have borrowed. Finally, many units have used considerable amounts of current revenues. Together, these sources have produced a very large total.

Despite the progress that has been made, however, there are still many large needs to be met. The school population continues to grow, and, while we are making some progress in reducing the deficiency in educational facilities, it is still large. Bonds sold for educational

purposes account for over $2 billion per year, or between a third and a fourth of the total, and they have been increasing both absolutely and relatively since the middle of 1958. Voters continue to approve bond issues for elementary and secondary schools and apparently with little regard to interest rates. In the first 11 months of this year the total of such bonds approved exceeded $1.6 billion—the largest amount yet recorded.

We are in the midst of the expansion to meet our public school needs, but most of the expansion to meet higher-education requirements is still to come. Borrowing for that purpose has already reached considerable proportion but will undoubtedly get much larger in the next decade.

Urban population continues to grow rapidly, creating an enormous demand for municipal outlays. This is especially true throughout the South, which has been the most rural part of the country. As one example of this, the urban population of the Fifth Federal Reserve District, between 1950 and 1960, grew by 30 per cent, while the rural population increased by only 1 per cent. Rapid urban growth creates an urgent need for water and sewer facilities, streets and expressways, parking facilities, urban redevelopment, parks, and a host of other facilities. There is nothing in sight as yet to suggest any slackening in this demand. In fact, the possibility that a Department of Urban Affairs may be created in the federal government indicates that activity may be stepped up.

At the state level the demand for highway construction continues unabated and may be raised, as large numbers of unemployed lead to the speeding-up of highway projects. Compact cars reduce highway revenues but presumably will not lower the cost of highway construction, and this may throw more of the burden on borrowed funds.

Voters at the polls continue to recognize the demands just noted and to give effect to them by approving bond issues. In the present year they voted on a record amount of bonds, and, with some returns from the November election still missing, the approvals stand at approximately $5.9 billion. This total included the huge $1,750 million issue for the Feather River Project Water Supply System in California, by far the largest bond issue ever authorized by popular vote in this country. It is expected that these bonds will be sold over a period of 15 or 20 years. But, even without this large issue, the bonds approved this year make a total that has been exceeded in only one or two other years.

When the bonds approved this year are added to those already approved but unsold, they make a record backlog or inventory of

unsold issues. According to the *Bond Buyer's* broad and comprehensive concept, the total on December 1, 1960, was $15.8 billion. Measured by the narrower and more specific concept employed by the Investment Bankers Association, the total was above $10.3 billion. In either case it is evident that the present total, plus additional amounts which may be authorized in the future and amounts which may be authorized without popular votes, will provide an abundant inventory for 1961 and for some time beyond.

II. The Supply of Funds

The principal buyers of state and local obligations are (1) individuals and others, (2) fire and casualty insurance companies, and (3) life insurance companies, in that order. In most years these three groups will usually purchase a fairly large majority of all bonds offered. In recent years the two insurance groups have been increasing their purchases rather steadily. In the case of life insurance companies, their policy is undoubtedly affected by the tax changes made in 1959 which make tax-exempt securities much more attractive to them. Unless there are changes in the provisions or in the application of the new tax law, life insurance companies should become increasingly important purchasers of state and local obligations.

Commercial banks are heavy cyclical buyers of state and municipal bonds. In periods of monetary ease they buy large amounts; in periods of tight money they buy few or none and may even liquidate some of their holdings. Between June, 1957, and June, 1958, all insured commercial banks increased their holdings of state and local obligations by $2.4 billion, or about 18 per cent. In the next two years, however, the increase was only $450 million, and between June, 1959, and June, 1960, there was a decline of some $200 million. In recent months, as bank reserves have become more abundant and the demand for loans has eased, commercial banks have again begun to build up their holdings. In the four months between June and October, member banks in the country as a whole increased their holdings by $424 million, or at an annual rate of more than $1.2 billion.

III. The Prospects for 1961

Conditions appear to be favorable for a resumption of the usual increase in state and local bond sales in 1961. A record inventory of authorized but unsold bonds and a continuing disposition of voters to approve new issues insure a strong demand for funds. There are no indications of a reduction in the supply of funds; some factors point toward an increase. The tax provision will probably lead life

insurance companies to buy additional bonds. Also, as savings and loan associations take a larger share of a reduced amount of mortgage debt, life insurance funds may be directed more toward municipals. Personal savings increased steadily throughout 1960 and are now at a record level. During the first half of the year the federal government will have a cash surplus, probably of several billion dollars. This will release funds through a seasonal reduction of the federal debt. This situation will certainly be reversed in the second half of the year and may well bring about a substantial curtailment of funds for the municipal market.

The most important factor, however, may well be the investment policy of commercial banks. These banks are now almost out of debt to the Federal Reserve System and have substantial excess reserves. Loan demand, at least in the early part of the year, is likely to be less pressing than it has been this year. With the federal government reducing its debt in the first part of the year, state and local issues should have considerable appeal to commercial bankers. This prospect is enhanced by the fact that time deposits in commercial banks have shown an unusually sharp rise in the last six months and bankers frequently consider the amount of their time deposits when shaping their investment policy. It is impossible to say how long these conditions of abundant reserves, monetary ease, and rapidly rising time deposits will continue, but there is nothing in the present situation to indicate an early reversal.

In summary, it is possible to say rather confidently that, barring some major adverse developments, funds for the purchase of state and local bonds will be readily available in the first half of the year. After that, conditions will depend on developments, but there is no reason now to doubt that they will be reasonably favorable.

What has just been said implies that the level of interest rates should, during the first half of the year, be well below the level of the early part of this year and may decline from present levels. It is impossible to speak with precision about the second half, but some increase during that period is possible and perhaps probable. Present rates are high in comparison with 5 or 10 years ago but moderate in comparison with a year ago and perhaps fairly normal in the light of the secular rise of all interest rates over the last 15 years.

With a strong demand assured, a good supply of funds probable, and the prospect of favorable interest rates, it would seem that there is a good chance that the sale of state and local bonds in 1961 will surpass the total for 1960 and may well go beyond $8 billion for the first time.

CORPORATE BOND MARKET

GEORGE T. CONKLIN, JR.
Guardian Life Insurance Company of America

THE OUTLOOK FOR the corporate bond market cannot be viewed in a vacuum apart from the other sectors of the capital market. The experience of 1959, when the net corporate bond financing dropped almost 30 per cent and yet corporate bond yields rose very sharply, indicates the danger of segmental analyses of the capital market. Unfortunately, therefore, the assignment of the outlook for the corporate bond market means the outlook for interest rates generally, with special emphasis on the particular influence of the corporate sector.

The greatest single determinant of the outlook for interest rates in the short run is still the outlook for general business, since the latter sharply affects the demand for funds, while, in the short run, supply remains relatively much more stable. We have been in a business recession of a mild nature for almost a year now, and it has already had a dominant, though by no means exclusive, influence on interest-rate behavior in this period. The primary question to be resolved, therefore, in a discussion of near-term outlook for interest rates is the outlook for business conditions over the coming year. Unfortunately, this gets us into a very hazy area for the period ahead. If this recession is to follow the pattern of the other postwar recessions, it should be approaching a bottom, with a significant upswing initiated by the summer. A cogent case for such behavior may be made by stressing the lack of serious excesses in inventory and capital and durable goods, the strong behavior of the consumer, and the expanding role of government spending. Opposed to this, an intelligent case can be made that this recession is of a basically different general nature than the others in a number of respects and that, therefore, it may last longer or be more restrained in recovery than prior postwar recessions. The principal differences between the current recession and previous ones may be summarized as follows:

1. The 1958–60 recovery was the only postwar recovery in which capital goods failed to achieve a new high. To one economist this development means that no excesses are present and the base has been laid for considerable increase in capital-goods spending. To another it means an evidence of a lack of dynamics in the economy,

engendered perhaps by anachronistic government tax and depreciation policies and anemic profit behavior over the last five years.

2. In each of the postwar recessions to date, residential building has been a star performer in cushioning the recession and initiating dynamic recovery forces. In the current recession to date, it has behaved in completely dissimilar fashion. Starts have been in a downtrend since the second quarter of 1959 and currently are still in a downtrend, though the trend has flattened out significantly in recent months. There is increasing skepticism, therefore, as to whether this important sector will perform its usual recession recovery role.

3. The current recession is the first in which a possible constraint has been placed upon domestic antirecession monetary and fiscal policy by the international monetary situation.

4. The current recession is the first postwar recession in which the banking system, despite extremely early easing action by the Federal Reserve, still does not "feel easy."

5. Business expectations concerning the inevitability of inflation, while still "latent," have undergone significant re-evaluation. While this is a healthy long-run development, in the short run it can have a dampening effect.

In summary, it is difficult, at the present time, to be honest with one's self and at the same time definitive and conclusive about the business outlook. The fact is that business is clearly declining at present and no definite indications of an upturn are at hand. Reasoning by past analogy, an upturn may be close at hand, but the existence of some sharply different factors operating currently raise some doubts about the immediacy of the upturn and the character of the subsequent recovery.

With this equivocal business outlook in the background, let us turn to the factors operating specifically in the corporate sector. Reflecting the recession, business demands for funds have been declining and may be expected to decline so long as we have recessionary tendencies. Corporate outlays on capital goods, for the first time in the postwar period, have turned down before reaching a new peak. Since this is generally a sluggish mover, it is quite likely that, for the first six months of the year, corporate outlays will be in a downtrend, though, based on the anticipatory series, it should be more moderate than in previous recessions. Corporate profit behavior in the current quarter is very poor, and this, coupled with ample capacity, reinforces the findings of the anticipatory surveys.

Corporate demand for inventories has, likewise, been receding sharply during 1960—from an $11 billion level in the first quarter

to a $2 or $3 billion liquidation indicated for the fourth quarter. Ample capacity in all areas, giving promise of no delivery difficulties, and a considerable diminution of inflationary fears have led to a basic change in the attitude toward inventories—which have literally appeared to have come out of hiding. There appears little basis, as yet, for a quick change-about in inventory demands on the part of business, though the worst appears to have been put behind us in this regard.

Corporate demand for funds for restoration of liquidity and for net receivables should increase in the first half of next year, as is usual in a recession.

The total of corporate demands for funds in the first half seems quite definitely to be down sharply from the first half of 1960 and probably down somewhat from recent levels.

Corporate profits have suffered sharply in 1960, and retained earnings will be materially lower than in 1959; in view of the sharp drop from 1959 to 1960 and the indicated mild character of the recession, retained earnings in 1961 may not be materially below 1960 levels. Corporate depreciation charges should continue to increase significantly to about $24 billion, as against $20.2 billion in the recession year 1958.

Total internal sources of funds, therefore, give promise of being somewhat greater in 1961 than in 1960. This, in turn, implies a materially lower demand for external financing by corporations. Net new issues of corporate bonds in the first half-year may drop some 20 per cent from the 1960 annual rate.

Thus, viewed by itself, the corporate bond sector should exert downward pressure on the interest-rate structure over the near term. The second half of 1961 could present a sharply changed picture from the first half in the event of a robust recovery.

With the corporate bond market adding up to a near-term picture of continued lessening demands upon the capital market, the question arises as to whether such influences will be offset by demands from other more important sectors of the capital market. The relative importance of the corporate bond market in the total capital market has declined materially in the postwar years. In 1959, for example, the net increase in corporate bonds amounted to but 15 per cent of the total net increase in the demand for long-term capital, exclusive of the United States government demand.

The most important factor by far in the long-term capital market has been the mortgage market. As a result of expanding mortgage demand in past postwar recessions, the total demand for long-term capi-

tal, exclusive of the government in such recessions, actually *increased* materially rather than decreased. Thus, in 1958, the demand for mortgages and corporate and municipal bonds aggregated $26.1 billion, as against $22.1 billion in 1957. The same total in 1954 amounted to $22.4 billion versus $20.0 billion in 1953.

Thus far in the current recession, mortgage demand has exhibited a declining, rather than an increasing, trend. Demand in the first half of 1961 will be substantially below the first half of 1960 and may well not expand from current levels. If the unfavorable current market for existing homes continues, the mortgage demand might decline from recent levels. Housing appears to be currently responsive to general economic conditions, rather than relatively isolated from them as in past recessions by a backlog of existing demand at current income and price levels. Consequently, should a vigorous recovery in business set in, the demand for housing and mortgages would undoubtedly likewise increase, but in all probability less sharply than in the postwar period generally.

Without attempting to go into the other sectors of the bond market, it would appear that total demand for funds other than government demand does not promise substantial expansion as in past recessions but rather general stability or further decline. Thus the over-all picture of lessened demand pressure on the capital markets, exclusive of the government demand, is somewhat similar to that of the corporate bond sector.

On the demand side for funds the biggest question mark is government demand. In the event of a continued recession a very large deficit could build up quickly, even in the absence of large new spending programs. Thus the demand of the government could easily more than offset declining demand pressures elsewhere in the market. If financed as much as possible through intermediate and long terms, the impact upon the long market is obvious. If financed largely through short terms and easy bank credit, the inflationary implications of this method, though indirect and taking longer to work out, would nevertheless tend to work in the same direction.

Thus, as far as demand pressures on the capital market for the near term appear to shape up, there will probably be a decline in the private sector, the effect of which will be offset completely or partially by an increased government sector demand. In the past these governmental pressures have been, in turn, completely offset in the short run by relatively drastic money-market measures, with the result that the increased demand was financed at declining interest rates. The changed current international money-market environment may well

place some constraint upon monetary and credit policy. The effect of the heavy gold outflow has certainly been a very important factor influencing interest rates in 1960. The outflow of funds from our short-term market to the European money markets has had a direct effect on our short-term money rates. The indirect effect of the outflow on antirecessionary government policy cannot be closely assessed, but it certainly has had some weight and will continue to carry weight in the new administration, for the fundamental problem is non-political and cannot be dismissed.

Thus the international gold problem cuts both ways as to interest rates—it tends to discourage extreme acts to lower artificially the interest-rate level, but it also may tend to inhibit government antirecession action, a factor which would tend to operate in the opposite direction. On balance, for the short term the net effect would appear to be a factor on the side of sustaining interest rates.

In addition to the international situation the character of the domestic monetary situation is different from that in previous recessions. The excess liquidity injected into our economic system as a result of the depression and the war has now been eliminated for the first time in the postwar period—this has been a result of rising business activity, rising prices, and Federal Reserve restraint. The result is that Federal Reserve policy, which in prior years of the postwar period had to contend with excess slack in the money supply, now has a different problem to cope with. With liquidity in the system now at relatively lower levels, Federal Reserve restraint can make itself felt much more quickly; on the other hand, a policy of ease which formerly took hold immediately has less immediate effect. If banks are "loaned up" as they have been this year, they will not vigorously push loans, even if reserves are freer—the first reaction will be to restore liquidity. Thus, to obtain a given desired effect to ease money may require greater action relatively than in the recent past, at the same time that such greater action may be rendered "suspect" by our international monetary position.

One final ingredient in the interest-rate picture should be noted, and that is the question of expectations. The entire expectational behavior of the bond market has undergone considerable change in the postwar period. Early in this period interest rates behaved pretty much as they have in the past with reference to timing—lagging on both the down side and the up side and taking a long period to make adjustments. With the increased understanding of the relationship between business conditions and interest rates in a market economy, a discounting behavior has resulted that has led to a change in interest

rates taking place much earlier and in a much more compressed period. For example, most of the downward market adjustments in interest rates in 1957–58 took place in a space of only four months, and most of the adjustment back up to previous levels took place, likewise, within a space of a few months. This behavior contrasts sharply with the behavior in 1948–49 and 1953–54, when rates declined for more than a year and then took well over a year more to get back to previous levels. In 1960 the downward adjustment in interest rates began ahead of the turning point in the business cycle, and the major downward movement was, likewise, compressed in a short period. Thus discounting is resulting in a more speculative and early-moving interest-rate market.

In addition, as each expansion in business in the postwar period has brought interest rates to new postwar highs and as confidence in the ability of the economy to keep down-side fluctuations to mild, short-lived recessions has increased, more and more investors are "looking through" recessions to subsequent recovery and expansion; thus they are less willing than in the past to follow interest rates down, particularly if they are not pressed for current investment by virtue of a sizable backlog of commitments. Reinforcing this down-side reluctance is an inflationary psychology which has taken some fifteen years to build up in investors' minds and which in the bond market was near the eruption point in 1959. This inflationary psychology has been temporarily toned down in considerable degree by policies and events of the past year, yet it is there beneath the surface and ready to appear again on much shorter notice than previously. Add to these factors the constant discussion and emphasis on the need for greater economic growth in this country, with its inevitably greatly expanded demand for savings, and one gets a fair picture of the changed bond-market expectational behavior. This type of behavior has apparently been operating in the bond market in 1960 and seems unlikely to change unless there is a change in the cyclical and growth pattern of business and the latent inflation expectations. Thus in many ways the same psychology as that applicable to stock-market behavior has its logical counterpart in bond-market behavior.

Conclusions to be derived as to interest-rate behavior are thus no longer as simple and direct as they have been in the postwar period to date, when one could predicate the outlook for interest rates wholly upon the business outlook. This is no longer true; other factors are now important in the picture. Changed expectations resulting from the postwar experience themselves are now a factor of

considerable importance, as are the lower liquidity level in the economy and the question as to whether the international situation will allow the financing of huge governmental demand at declining interest rates as in the past.

On balance, it would appear that if the pattern of postwar recessions holds for the current recession, then we are not far from a turning point in business, to be followed by a vigorous recovery. In that event it is likely either that we have already seen the lows in bond rates or that the lows will be established by spring at levels not greatly below the 1960 lows.

On the other hand, if the changed characteristics of the current recession outlined in this paper are indicative of a more basic structural difficulty in the economy and presage a break with the postwar cyclical behavior pattern, leading to either a more prolonged recession and/or an anemic recovery, then not only will the fundamental supply-demand relationships of the private sector undergo substantial change, but so will bond- and stock-market expectations. In this event a further decline in interest rates is likely over the balance of the year, although the decline will be tempered by the consequent huge prospective federal financing demands upon the market.

GOVERNMENT BOND MARKET AND DEBT-MANAGEMENT POLICY

ROBERT P. MAYO
Continental Illinois National Bank and Trust Company of Chicago

THE ENVIRONMENT IN which the government bond market and debt-management policy operates is obviously deeply intertwined with the problems of budget and monetary policy. It is generally agreed that the value of the American dollar will be adequately protected only if we follow sound national financial policies in all three of these areas. This is as important to us domestically as it ever has been in the past if we are to provide a solid financial base to sustain the economic growth which is vital to our future welfare. In addition, it is important to the free world's success in providing a strong financial base that must undergird our fight against communism. With investors throughout the free world holding billions of short-term dollar claims in the form of United States government securities and deposits, our responsibilities in guarding the value of the dollar take on increased stature.

The area of discretion in which debt-management policy operates is limited by the fact that the Treasury is in effect handed a total amount of debt outstanding which it must manage. The Secretary of the Treasury usually exercises powerful influence in the over-all shaping of government spending programs and tax recommendations. He has, however, very little control over the federal surplus or deficit, once congressional action has been completed on the budget and on taxes. The Treasury's debt-management responsibilities are most directly concerned with the structure of the public debt rather than with its total.

The environment in which debt management operates depends significantly on whether the federal government is running a surplus or a deficit. It is easier to manage a declining debt than an increasing one. When fiscal policy forces heavy deficit financing during a period of rising economic activity, as it did in 1959, regardless of how skilfully the debt is managed, it is inevitable that inflationary pressures will be built up as a substantial public demand for funds is added to large demands in the private economy. This in turn makes the job of effective monetary restraint even more difficult as it seeks to keep the money supply from expanding too rapidly. A year ago

we were just completing the most recent cycle in this regard as $8 billion of federal deficit financing in the year 1959 was piled directly on top of new record demands in other parts of the economy. This unprecedented competition for funds resulted in Treasury financing in the 5 per cent area, both on 4–5-year notes and on short Treasury bills, the highest rates for more than 30 years—thanks in large part to the stubborn refusal of the Congress to remove the archaic 4¼ per cent interest rate ceiling on long-term Treasury bonds.

As we are all aware, there has been a significant downward movement of interest rates in 1960. A principal factor in this decline, along with the general slackening of economic activity, was the impact of fiscal policy on the over-all demand for funds. The fiscal year 1959 showed a budget deficit of $12.4 billion. There was a budget surplus of more than $1 billion in 1960. The flow of investment funds in the market, therefore, was dominated by a shift of about $13.5 billion between the two fiscal years. This dramatic shift was typically underestimated by financial analysts in their forecasts in December, 1959. It is more than a coincidence that the peak of interest rates occurred at the same time as President Eisenhower's State of the Union message, in which he indicated that the 1960 budget would be balanced and there would be a surplus in fiscal 1961. As time wore on, it became clearer that the government was actually going to run a surplus in 1960. It also became clearer that, even though private demands for funds remained high, they were no longer expanding in line with year-end forecasts. As a result, interest rates fell.

The decline in longer-term interest rates during 1960, modest though it was, presented the Treasury with the opportunity to accomplish needed reform in the debt structure which had been denied to it in the preceding year. In late March the Treasury made its first attempt in some time to sell bonds beyond 5 years to maturity —an effort which met with only mediocre success, with less than $400 million sold to the public. A further softening of longer rates, however, opened up two more opportunities during 1960 to sell bonds beyond 5 years to maturity, and those issues met a somewhat better reception. A billion dollars of 8-year 3⅞ per cent bonds were sold in August, and $1.2 billion more of 5½-year 3¾ per cent bonds were sold in the November 15 financing.

Of even greater importance, however, is that the Treasury was able to move forward with its new technique of advance refunding, which had been made feasible by congressional action in September, 1959. As you know, this involves an exchange offer by the Treasury

well in advance of maturity to holders of bonds which have become shorter because of the passage of time—the offer consisting of new bonds of considerably longer maturity. The new advance refunding legislation permitted investors to accept new long-term bonds in exchange for their old ones and to put the new securities on their books at the same price as the old ones, so that they would not have to show a loss on their books.

The 4¼ per cent interest-rate ceiling effectively barred taking advantage of the new legislation until June, 1960. Even then, the limit prevented large-scale advance refunding of 2½ per cent war loan bonds. The Treasury was, however, able to apply the advance refunding technique in June to the more immediate problem of more than $11 billion of publicly held bonds concentrated in November, 1961—the largest single issue of Treasury securities outstanding. If all these bonds had been allowed to mature next November, it is conceivable that the market atmosphere at that time might have made a successful refinancing extremely difficult. In June the advance refunding technique was successfully applied to the diversion of $4 billion of this heavy concentration by giving investors the opportunity to extend their maturities by exchanging their November 61's either for 4-year notes or for 8-year bonds. Most of the extension was accomplished through the 4-year notes. Again, as in March, the time was not yet ripe for the sale of an 8-year bond in any size, even with a yield of almost 4¼ per cent during the extension period.

The June advance refunding operation provided an excellent pilot study of the new technique. It familiarized the government securities market with the way in which the advance refunding could be used and the way in which investors would be likely to look at yield comparisons. Even though interest rates eased very little more during the summer, the movement was sufficient to permit the Treasury to move into its first large-scale advance refunding in early September, taking advantage of a lull in the financial markets between regular Treasury financings. This advance refunding offered holders of the 2½'s maturing in 1961 through 1969 the opportunity to extend their maturities into longer 3½ per cent bonds. Investor response to the advance refunding was substantial, and the Treasury has every right to consider its first real advance refunding effort a success. Almost $3.5 billion of long-term bonds were placed in the hands of investors whose primary interest is in the long-term market—insurance companies, pension funds, individuals, and other savings-type investors.

It is fair to say that the advance refunding technique has lived

up to the claims which have been made for it in recent years. The operation took place at a time when the government securities market was basically drifting and somewhat hesitant in response to economic uncertainties. Yet the impact of moving this large volume of securities from one maturity range to another was done smoothly without upsetting the market. There was certainly far less market disturbance than would have taken place with a new issue of bonds offered for cash or in refunding older issues at their final date of maturity.

The September advance refunding added to the breadth of the government securities market by providing a tradable supply of new long bonds. Yet this was done at a cost that not only is modest from the short-run standpoint but may actually result in net savings to taxpayers over the long run. The Treasury will do well to make further substantial use of the advance refunding technique, not only in extending the maturities of other war loan 2½'s, but also with reference to other issues where the operation would be much less dramatic. Active use of the advance refunding technique should continue, regardless of changes in Treasury administration. It is a principle which has been approved by leaders of both parties and represents the best hope of keeping the average length of the public debt from getting shorter and of keeping long-term customers invested in long-term securities.

Debt managers also displayed a willingness in 1960 to adapt their programs to changing conditions in the bill market. They also demonstrated a willingness to experiment cautiously with the new techniques in routine refunding operations, making it clear to the market that in the future the Treasury would not always offer the holders of maturing securities pre-emptive rights to buy new securities.

Debt-management policy has continued to place appropriate emphasis during 1960 on the savings-bond program. The increased interest rates of 3¾ per cent put into effect a year ago have resulted in a satisfying increase in the amount of E and H bonds outstanding to a new record of $43 billion. Debt management in the postwar period has had an uphill fight against the waning interest of institutional and individual investors in long-term government securities. This lack of interest is a logical result of an institutional preference to help finance the growing private economy, at higher rates than available on governments, to an extent in excess of their current flow of savings. The government, of course, has encouraged this movement through the tremendous expansion of the insured and guaranteed mortgage programs in the housing industry. The quadrupling

of the supply of state and local government securities in the postwar period has also meant that very few individuals—except for the brief movement last winter—have actively bought marketable United States government securities. It is only in the savings-bond area that the Treasury has been able to hold its own in encouraging long-term savings to flow into government securities.

Treasury demands on the financial markets during 1960 were quite modest relative to either 1958 or 1959. The outlook for 1961 is still not clear. Earlier this fall it was reasonable to assume that no new Treasury borrowing would be required during the January–June, 1961, period. This assumption, however, rested on the October budget review projection of a billion dollar surplus for the fiscal year 1961 as a whole. That assumption no longer seems realistic, since it in turn was based on a level of corporate profits of $47 billion for the calendar year 1960—a level which may easily be $2 billion too high on the basis of the record for the first nine months of the year. This could wipe out the prospective surplus, since half of any loss in corporate profits is the government's loss. Personal income taxes are running in line with estimates, and it is unlikely that any increases in spending programs which may take place in the next Congress will have any substantial budget effect before the fiscal year 1962. At this point it still seems reasonable to project that the Treasury may be able to get along without new cash financing during January, February, and probably March. Later on in the spring, however, a modest amount of new cash borrowing seems likely to cover cash needs and perhaps also to permit the $2 billion April bill maturity to be cut back to $1.5 billion—a constructive step which has already been taken on the other three 1-year bill issues. With heavy repayment of seasonal borrowing in March and again in June, it appears that the net effect of Treasury financing as an isolated factor during the first half of 1961 will be to lower interest rates generally rather than to raise them.

Beyond next June, the outlook for debt management and for the government securities market is intimately tied up with the fiscal actions of the new Administration and the new Congress and with the state of the economy as a whole. The strong and weak points in the outlook for 1961 are well known to each of you. The economy has been drifting, even though 1960 as a year has set new records in employment and over-all economic activity. I do not believe that this drifting tendency carries with it the seeds of any substantial setback of economic activity in 1961. On the other hand, it is difficult to see why the economy should experience any substantial upturn until

spring—and it is not unlikely that it will be fall before economic recovery becomes evident.

Such a projection of continued economic drift should carry with it a short-term projection of lower interest rates for the economy as a whole. This may well be true, but there are good reasons to believe that such movement will not be substantial. The experience of the last three or four months, when business news has been consistently, though mildly, bearish, brought with it no significant easing in interest rates. In the intermediate- and longer-term area, interest rates have become sticky, as investors argued that the recession would be shallow and would not last very long and as they reflected election and international uncertainties. As a result, many of them preferred to stay on the sidelines, buying short-term securities until such time as interest rates turned around again. The pressure on savings and loan associations to keep their dividend rates at a high level has helped to keep mortgage rates from easing too significantly, although mortgage money has shown some recent tendency to become cheaper and more readily available.

In the shorter-term area, it is apparent that both the Treasury and the Federal Reserve have been anxious to keep short-term rates from falling too much this year for fear of widening the interest-rate differentials between the United States and Western Europe. These interest-rate differentials made it sufficiently attractive during much of 1960 for American and foreign investors alike to add substantially to their holdings of government securities abroad, and that factor has been a prime contributor to our international balance-of-payments problem and gold outflow during recent months. Recently, these interest-rate differentials have narrowed somewhat. Treasury bill rates have stabilized around the 2¼ per cent level, while the return on alternative investments abroad has fallen somewhat as the result of discount-rate reductions in France, Germany, and the United Kingdom. Treasury financing operations have also been cognizant of the rate differential problem. While pursuing its long-term objectives of debt extension by offering the usual opportunity to investors in the November refinancing of a choice between a short-term security and one in the intermediate range, it would appear that the Treasury purposely priced the shorter issue more attractively than the longer issue, so that the short-term rate would not be pushed down unduly by reducing the supply of available short-term securities.

The Treasury will continue to face this problem in 1961. The obvious course of debt management as an effective teammate of an easier-money policy would seem to be to do almost all financing in

the months ahead in the short-term area. That would tend to keep short-term rates from falling too much—consistent with international goals. It would also help long-term rates seek a lower level, which might encourage further capital expansion in housing, plant and equipment, and state and local construction activity. But there is less evidence in the present recession than was true in preceding ones that capital-expansion programs are being inhibited significantly by the lack of available funds. Corporate flotations of new securities are at a very high level, and so are new state and local securities issues. And there is increasing evidence that the housing problem is not now so much one of inadequate credit as it is one of slackening demand. This helps support the Treasury's position that it always give serious consideration in its financing operations to the long-term goal of improving the structure of the public debt, which is an important adjunct to the achievement of the long-run goals of effective monetary policy. I would expect, therefore, that the Treasury would resolutely chip away in 1961 at its ever shortening debt, lengthening a little at a time by continuing to offer holders of maturing securities the option of an intermediate-term security along with the short-term leg of each exchange—hopefully also with some advance refunding along the way. I believe that, through proper pricing of new Treasury issues, this can be accomplished without widening the international differential in short-term rates.

The goal of a well-balanced public debt structure will continue to present a tremendous challenge to the managers of our national finances. At the present time about $75 billion of the public debt is due within 1 year, and a record amount of over $85 billion is due within 14 months. Approximately 80 per cent of this debt represents the short-term investments of non-financial corporations and other non-bank investors in government securities as they invest their tax reserves and other temporary funds. Even though it is higher than it should be, so large an amount of short debt does not pose nearly so serious a problem of potential inflationary pressures as it would if it were mostly bank-held debt. On the other hand, there is appropriate concern about the $60–$70 billion of the public debt in the 1–5-year category, a figure which has approximately doubled since 1953, while the under-1-year debt has increased much more modestly. Part of this undesirable development is directly attributable to the forced concentration of Treasury borrowing within the 5-year area as a result of the impact of the interest-rate ceiling limitation during the 1960 fiscal year.

This means that less than one-fourth of the marketable debt is

longer than 5 years to maturity. The 5-year-and-over debt has gone down from $48 billion to $42 billion during the last seven years. The Treasury has put out more than $50 billion of new issues in this area in this same period of time, but the passage of time has more than erased all the gains that have been made. Within the over-5-year area, however, some progress has been made, as the volume of over-20-year debt has risen from $1.5 billion in 1953 to $11.5 billion now, thanks in part to the recent advance refunding.

Advance refunding can do a great deal in the future to help the Treasury hold its own, but an even bigger job that must be faced is to try to regain some of the ground already lost in recent years as long-term investors turned away from government securities. Any success that can be achieved in regard to a better balance of its maturities will help reduce reliance on short-term bank financing, which is, of course, only one step removed from money in its liquidity characteristics.

The importance of debt management as a strong support to effective budget and monetary policy should not be underestimated. The Treasury should do everything it can to conduct its debt-management policies in a way that harmonizes with the monetary policies of the Federal Reserve in the short as well as the long run. To do otherwise would add unfairly to dependence on the Federal Reserve to do its part in combating cyclical influences. The appeal of the sale of a large volume of long bonds to divert funds away from the private economy during a boom must be carefully appraised, lest the Treasury itself turn inflation into deflation by the crudeness of its actions. Nor can the Treasury abstain completely from selling long-term bonds during periods of economic downturn, or it will fail to keep pace with the passage of time in shortening the average term of the debt and thus fail to give monetary policy the long-run support which it vitally needs.

LONG-TERM SMALL BUSINESS FINANCING FROM THE UNDERWRITER'S POINT OF VIEW*

GLENN R. MILLER
Cruttenden, Podesta & Co.

FOR PURPOSES OF this discussion, I am going to accept the definition of small business adopted by the Small Business Administration. To qualify as "small" under the SBA regulations, a company's total assets must not exceed $5 million, and its average annual income after taxes for the preceding two years should not exceed $250,000.

It is interesting that the SBA recently changed its regulations to raise the upper limit of net income from $150,000 to $250,000 after income taxes. Thus a company earning close to $500,000 per year before income taxes can still qualify as a small business. This is a long way from the corner grocery store, laundromat, restaurant, or other "ma and pa" enterprises usually financed out of earnings of the owner or his family.

The upper limits on assets and net income set by this definition are sufficiently high that many companies in the small business category have no difficulty in raising capital by the public sale of securities through underwriters. On the other hand, there are many companies that cannot raise capital even though their assets and net income are substantially above the foregoing limits. Size, then, is not the only criterion. Other important factors that carry great weight with the underwriters are the nature of the industry, its popularity with investors, the trend of earnings, and the outlook for future earnings.

Probably the most important factors are the nature of the industry and its popularity with investors. For example, with the recent popularity of electronics stocks, there have been many successful public offerings of securities by electronics companies with little or no earnings record. In fact, the public appetite for stocks of small electronics companies regardless of earnings or assets has been little short of amazing. Nevertheless, size is also an important criterion. Many

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underwriters do not like to underwrite public offerings of securities for less than $1 million. Others set their lower limit at $500,000. Still others are willing to go down to $250,000 to $300,000, which, under Regulation A, can be handled on a simplified basis without a full registration.

I. Problems Involved in Handling Small Underwritings

Why is it that some underwriters do not like to handle small underwritings? What are some of the problems?

1. Many enterprises seeking new capital are essentially promotions. A man has an idea for a new product or a new manufacturing process, and he wants to get into business with someone else's money. Requests for capital for such promotions are almost universally turned down by underwriters because the risks are simply too great. There are enough risks to contend with in the average small business without incurring the additional risk of a completely untried enterprise with no record whatever.

2. Many owners of small businesses want long-term loans rather than the equity capital they really need. Such owners are reluctant to reduce their percentage of ownership by taking in the public as partners. They fail to realize that investors who take an equity risk, whether it be in the form of loans or stock, are entitled to an appropriate return in the form of a potential capital gain. At this point, the small businessman comes face to face with a basic decision as to whether he wants to own 100 per cent of his small business or a lesser percentage of a larger business.

3. The after-market on small security issues is necessarily thin. By "after-market," we mean the market for a security after the original public offering. Security buyers recognize that trading is certain to be infrequent in small issues, and many dislike the limited marketability differential. It should be remembered that every security is in competition with every other security for the investor's dollar, and there are hundreds of attractive stocks with broad markets listed on our stock exchanges.

4. The management of small companies is, all too often, inadequate. By its very nature, the small company cannot afford to hire specialists in all phases of management. Usually one man at the top is forced to make the decisions in all areas of business activity, whether it be marketing, production, finance, or any of the other phases of business operation. Also, the top man in the small company frequently does not have the experience and background necessary to come up with the right answers. In my opinion, much of the criti-

cism leveled by small businessmen at the lack of available capital should be directed at the businessmen themselves, who do not recognize their own inadequacies.

5. Small businesses frequently do not have adequate accounting procedures. It has been our experience that businessmen cannot operate effectively unless they have an accounting system that will produce accurate monthly income statements and accurate costs of product. It is also important that they have the assistance of good independent auditors who certify their financial statements annually. Without up-to-date information, management simply cannot operate effectively. Yet many small businesses do not have such information, either because managements are not aware of the need for it or because they have the mistaken impression that they cannot afford the expense of compiling such information.

6. Small companies frequently lack adequate legal counsel. In registering securities with the SEC and qualifying them for sale under various state regulatory laws, specialized legal counsel is necessary. Law firms who do not have an SEC specialist are usually not equipped to handle new securities offerings. The company should hire special counsel for this purpose, and, unless it does so, the burden upon the underwriter and his counsel is greatly increased, thereby making the small underwriting just that much less attractive to the underwriter.

7. Business risks are much greater in a small business than in a large one. A small company, which necessarily is a small factor in its industry, is more vulnerable to competitive pressures than a large company with its greater financial strength. "The rich get richer and the poor get poorer" is unfortunately a fairly accurate statement of the competitive situation in business today.

8. A small underwriting frequently involves almost as much work for the underwriter as a large one, sometimes more, because the small company does not have readily available information needed by the underwriter. In such cases the underwriter must do some of the work ordinarily done by management.

II. What Does the Underwriter Do?

In every underwriting, the underwriter must carefully investigate the business, its products, production facilities, markets, management, financial position, earnings record, and earnings potential. He must study the industry and compare the company under consideration with others in the industry to determine at what price its securities may be sold in the market. He must advise management as

to the type of financing best suited for its purposes. Frequently, management is not aware of all the financing alternatives, and the underwriter can tailor a financing pattern which can best reconcile the management's objectives with the realities of the market.

A registration statement or descriptive offering circular (in the case of Regulation A offerings) must be prepared, usually by the company's counsel in co-operation with the underwriter's counsel and members of the underwriter's research or buying department. This is printed, frequently at considerable cost, and is filed with the SEC and the State Securities Commission, along with other required data.

The underwriter usually organizes and heads a syndicate of securities dealers who share in the purchase and distribution of the securities (except in the case of very small issues, where the underwriter may act alone). The terms of the purchase are set forth in a rather formidable legal document known as an "underwriting agreement," prepared by the underwriter's counsel and usually printed.

The offering of the securities is usually preceded by a meeting at which the participating underwriters have an opportunity to meet the management and ask questions about the business.

Under the law, the prospectus is limited strictly to historical fact and to any adverse factors bearing on the future. Favorable future factors, especially earnings estimates, are not permitted, on the grounds that they are conjectural. Since investors buy securities primarily on the basis of future earnings potentials, the story which does not appear in the prospectus is often just as important as the prospectus itself.

The underwriter's job does not end with the initial sale of the securities. After the offering, he usually takes the lead in maintaining a continuing market in the company's securities. Underwriters frequently prepare research memoranda on the companies they have underwritten so that investors may be kept up-to-date and new buyers may be found for securities which are continually coming into market from sellers.

Also, the underwriter must educate the management with respect to its stockholder relations. This usually takes the form of assistance in the preparation of annual reports and quarterly stockholder reports, and often involves continuing financial advice. The underwriter has a responsibility to his customers to maintain a continuing relationship with the company, and this can require a substantial amount of time. Over a period of years, an underwriter may have such a responsibility for as many as fifty or more companies. Hence the underwriter who takes a serious view of his responsibility must consider the cost

to him in terms of time of every additional new underwriting, and this weighs heavily against the small business concern, which, if anything, requires more time than the large one.

III. Cost of Small Business Financing

It is not surprising, then, that the underwriting commissions on small offerings tend to be higher than on large ones. Also, in the case of smaller issues, underwriters frequently insist upon compensation in addition to the underwriting commission itself in the form of stock options, which enable the underwriter to realize a capital gain, if the stock increases in value.

TABLE 1*

Cost of Flotation of Registered Corporate Securities
1951, 1953, 1955

	Per Cent of Selling Price			
	Bonds	Preferred Stocks	Common Stock	
			Total	Mfg. Only
Under $500,000	.....	.....	27.15	19.69
$ 500,000–$ 1,000,000	11.49	12.63	21.76	13.68
$ 1,000,000–$ 2,000,000	8.17	8.07	13.58	12.84
$ 2,000,000–$ 5,000,000	3.78	4.88	9.97	8.61
$ 5,000,000–$10,000,000	1.83	3.72	6.17	6.38
$10,000,000–$20,000,000	1.52	2.92	4.66	4.88
$20,000,000–$50,000,000	1.33	3.20	5.37	5.48
$50,000,000 and over	1.19	2.51	.....	.....
Total	1.49	4.34	10.28	10.06

* Source: U.S. Securities and Exchange Commission, *Cost of Flotation of Corporate Securities, 1951–1955* (June, 1957).

In fact, the granting of stock options may be the critical factor in the balance leading to the decision on the part of the underwriter to undertake a particular underwriting for a small company, since it may be impossible for the underwriter to be adequately compensated out of a normal underwriting commission.

The SEC has compiled statistics showing the relative cost of marketing securities for businesses in varying size classifications for the years 1951, 1953, and 1955 (Table 1). Although this information is not available for later years, the differentials demonstrated by the 1951–55 SEC data undoubtedly prevail today. According to the SEC tabulation, for the years 1951, 1953, and 1955, the average cost to

the selling company for common-stock offerings of $500,000 or less was approximately 27 per cent, as compared with approximately 22 per cent for stock offerings ranging in size from $500,000 to $1 million and 14 per cent for issues ranging in size from $1–$2 million.

These percentages are distorted somewhat by the inclusion of mining issues, particularly uranium issues, which were popular in 1955. If we separate the mining issues from the manufacturing issues, we find that the selling cost of the manufacturing issues was somewhat lower than the average cost for all issues, as shown by the accompanying data taken from Table 1. While these costs may seem high, it should

	Per Cent Cost of Flotation	
	All Common Stock	Com. Stocks of Mfg. Co.'s Only
Under $500,000	27.15	19.69
$ 500,000–$1,000,000	21.76	13.68
$1,000,000–$2,000,000	13.58	12.84

be remembered that equity capital is permanent capital and that these costs are non-recurring and should be spread over a long period of time.

These percentage costs include not only underwriters' commissions but also the various additional costs borne by the company in connection with the offering. Some of these costs are relatively fixed, regardless of the size of the issue. Such costs include the printing costs, legal expense, accounting expense, and the cost of registering the securities with the SEC and the various state Blue Sky commissions. By "Blue Sky commissions," we mean the *state* regulatory organizations having jurisdiction over security offerings. It is because of these fixed costs that the percentage cost in relation to the size of the issue rises sharply on small issues. It should be remembered that there are no worthwhile short cuts which can be utilized in a small piece of financing. The liabilities under the securities acts are the same for the underwriter regardless of the size of the issue.

IV. Advantages of Underwriting Securities for Small Companies

In view of the problems, why does the underwriter bother with small companies?

1. First, and probably most important, many underwriters find

this business to be profitable. Here we have the good old profit motive at work. The underwriting business includes a wide variety of firms ranging from giants in the industry who underwrite securities for the big corporations to small securities dealers who specialize in Regulation A offerings of $300,000 or less. In between are many medium-sized regional underwriters who do a very satisfactory volume of business by underwriting securities for small and medium-sized companies in their vicinity. In spite of the problems inherent in small issues, these underwriters find that the higher profit margin on such issues compensates for the work involved.

2. The small companies frequently offer possibilities for greater percentage growth than do large companies. Investors recognize that the risks are greater in a small business than in a large one, but they are willing to undertake these risks because of the possibility of greater capital gains.

3. As small businesses grow, they may need additional capital, which means that they may from time to time return to the capital market. This repeat business is always attractive to investment bankers.

V. Availability of Small Business Financing

In spite of all the conversation about lack of capital for small business, a substantial volume of this type of financing is taking place. I believe it is safe to say that the great bulk of security offerings under Regulation A ($300,000 or less) are for companies which fall within our definition of small business concerns. In the four years ended June 30, 1959, a total of 3,968 issues, involving an aggregate of $744,-871,957, was offered to the public under Regulation A, of which 38 per cent was offered without underwriters (Table 2). The offerings without underwriters were handled directly by companies who either did not wish to pay the cost of underwriting, did not need an underwriter to sell the issue, or were unable to find one willing to handle it.

There is no summary of SEC data on securities registrations (over $300,000) either by size of offering or by size of business. However, based upon personal observation, I am sure that there has been a substantial volume of public financing in the $300,000–$1.5 million range for companies falling within the upper limits of our small business definition.

Local regulatory requirements can have an important bearing on the availability of small business financing. For example, in the state of Illinois there is much less public financing of small business than in certain eastern states, such as New York, Pennsylvania, and Mas-

sachusetts, where the Blue Sky laws are more liberal. In Illinois, the $300,000 Regulation A exemption is virtually meaningless, because the Illinois Securities Commissioner requires the filing of all the information called for in a full registration statement, even though the issue might be exempt from the SEC. Because of this regulatory climate, underwriters in Illinois have generally avoided small business financing under Regulation A.

Furthermore, the Blue Sky laws of most of the middle-western states are based upon a totally different regulatory concept than are those of New York and several eastern states. In an effort to protect the investor more fully, the laws of most middle-western states are so-called "Judgment" statutes, which give the commissioner broad

TABLE 2*

REGULATION A OFFERINGS

Fiscal Year Ended June 30	Underwritten	Not Underwritten	Total	Per Cent Underwritten	Dollar Amount
1956.....	630	833	1,463	43.1	$273,471,548
1957.....	328	591	919	35.7	167,269,900
1958.....	243	489	732	33.2	133,889,109
1959.....	318	536	854	37.2	170,241,400
Total 4 years, 1956–59...	1,519	2,449	3,968	38.3	$744,871,957

* Source: U.S. Securities and Exchange Commission, *Annual Reports Ended June 30, 1958* and *1959*.

discretionary powers, particularly with respect to disallowing the sale of the security if, in his judgment, it is not fair and equitable to the buyer. Many of these statutes also prescribe maximum commissions and underwriting expenses. On the other hand, the New York law is merely an antifraud statute, which gives the commissioner no discretionary authority to determine whether the securities are fair and equitable to the investor.

The midwestern approach unquestionably gives the investor greater protection, but it also deprives him of the right to buy many attractive securities which are sold in the East and which, for one reason or another, are disallowed by the securities commissioners or administrators of the various middle-western states. More to the point in connection with this discussion, however, the judgment statutes of the middle-western states have resulted in a regulatory climate which discourages the development of underwriters who will specialize in financing small business enterprises. Unquestionably, one of the rea-

sons for the concentration in New York of underwriters engaged in financing small business is its liberal regulatory climate.

An owner of a small business looking for financing should keep in mind the wide diversity of structure and policy in the investment banking industry. There are 29 investment banking firms in the country with individual capital in excess of $10 million and another 36 with capital ranging from $5 million to $10 million. These firms are primarily interested in financing large companies, although occasionally, where the outlook for a smaller company appears to be particularly good, they may underwrite issues as small as $1 million on companies which fall within the upper limits of the SBA definition of small business.

A notch lower in size are the 54 investment banking firms with capital ranging from $1 million to $5 million, and another step down are the 61 firms with capital ranging from $500,000 to $1 million. Some of these firms are participating underwriters rather than originating underwriters, but many will occasionally originate offerings of small companies.

Furthermore, there are more than 4,000 smaller securities dealers around the country, some of which are quite active in financing small business. Consequently, the owner of the small business who gives up after talking to a handful of well-known investment banking firms probably has not exposed himself sufficiently to those smaller firms in the industry most likely to be interested in his type of financing. Also, the businessman should remember that, with so many investment banking firms available, there is certain to be a wide diversity of opinion as to the attractiveness of a particular piece of financing. Differences of opinion make markets, and an underwriting rejected by several investment banking firms might readily be undertaken by others.

VI. What Are the Standards Applied by Underwriters?

Because of the large number of underwriting firms and the wide differences in their characteristics and interests, it is difficult to generalize with respect to the standards which must be met by a small business seeking public financing. However, in spite of these differences, there are some broad general standards that will be applied by most underwriters.

1. The company should not be promotional. The company should be in business and usually should have a record of earnings. A substantial number of the many applications which we reject every year

fall in this category of promotional financing, in which the promoters want to start a business with someone else's money.

2. Management must be good. It is not always easy to evaluate management, but here again a very high percentage of applications is rejected after a preliminary interview indicates that management does not appear to be capable of running a publicly owned company. Usually this is not the reason given in rejecting the application, but frequently it is the real reason.

3. There must be a good growth potential. Underwriters do not undertake to finance a small company if it appears that the company is not going anywhere. The security may also provide a high yield which helps to make it more attractive to the investor, but it is doubtful if underwriters will undertake to finance a small company unless it appears to have a growth potential.

4. The company should be in an industry which is popular with investors. There are fads and fashions in securities just as there are in women's hats or dresses, and underwriters are much more interested in financing a company in an industry that is popular than in one that is unpopular. Back in the 1920's the public utilities were the darlings of the investors. Early in the 1950's the favorites were the television stocks and later the Canadian oil stocks, uranium stocks, and nuclear instruments. At the present time, among the favorite industries are electronics, missiles, photographic stocks, bowling and recreation stocks, and almost any kind of science stock. We have even had a surge of public interest in the small business investment company stocks sparked by the spectacular market performance of the Electronics Capital Corporation common stock, which was offered at $10 per share in June, 1959, and subsequently sold above $20. This market advance resulted not so much from the earnings of the company itself as from the general market interest in electronics stocks. As a result of this market performance, however, there have been offered to the public during 1960 at least 13 small business investment company stocks at an aggregate selling price of over $85 million.

5. Balance-sheet ratios are not nearly as important in small business equity financing as in the case of institutional borrowing. In equity financing, much greater attention is devoted to the earnings picture, past, present, and future, particularly the future. Hence a large part of the attention of the underwriter is devoted to the industry factors and the internal company factors which have a bearing on future earning power.

VII. Control

Many executives mistakenly fear that public financing means loss of control. Actually, the stock sold to the public is distributed so widely that no one holds enough stock to become an important voice in management. So long as more than 50 per cent of the stock is retained by the original owners, there can be no question about outsiders getting control. As a practical matter, it is possible for management to retain control even though its holdings drop well below 50 per cent, because it controls the proxy machinery through which it is assured of getting a large percentage of the votes of the public stockholders.

If, on the other hand, instead of going public, a sizable block of stock were sold privately to a few individuals, each purchaser would have a large personal interest in the company and might be more troublesome to management than public stockholders, even though management continued to hold over 50 per cent of the stock.

The percentage of ownership given up by the original owners in the event of public sale of stock depends on the size of the company and the amount of capital to be raised. It is impossible to generalize on this point. The important question that must be decided by the owners is whether they would be better off by owning a smaller percentage of a larger pie.

VIII. Conclusion

In discussing small business financing from the underwriter's point of view, we have considered the underwriter's problems, the work performed by the underwriter, the cost of the financing, the advantages to the underwriter in undertaking small business financing, the availability of financing for small business, the standards applied by underwriters, and the question of dilution of control by the original owners. To sum up, we might say that many small businesses are successful in obtaining capital from the public through underwriters and that the amount of capital channeled into such businesses is substantial.

On the other hand, many small companies fail in their quest for public financing because of basic weaknesses in their businesses, because they give up too early in their search for an underwriter, or because they are unwilling to do the things which will make their securities attractive to the investor.

I emphasize this matter of attractiveness to the investor. The investment banker is a "middle" man not a "miracle" man, and his function is to reconcile the divergent viewpoints of the investor and the company so as to channel capital into productive use.

LIFE INSURANCE COMPANY LENDING TO SMALL BUSINESS

GORDON W. MCKINLEY
Prudential Insurance Company of America

THE INVESTMENT OPERATIONS of the United States life insurance industry extend over a wide geographic area, covering the United States, Canada, and, to a limited extent, certain other foreign countries. Life insurance companies are major lenders in the residential mortgage market, the farm mortgage market, the commercial and industrial mortgage market, and the corporate bond market. In addition, their earning assets include government securities, real estate, common and preferred stocks, and policy loans.

The industry is composed of approximately 1,450 legal reserve life insurance companies with assets of about $120 billion. The annual cash flow available for long-term investment by the industry, i.e., net income from operations plus net investment income plus repayment on investment holdings, is at present running about $11 billion.[1]

Life insurance companies began the postwar period with an abnormal distribution of investment holdings, resulting from the unusual conditions existing during the depression of the 1930's and the World War II years. Since 1945, the industry has steadily reduced its investment in government securities and has thus been able to make available additional funds for farm, residential, and business loans. At the end of 1960, about 40 per cent of the industry's assets are in the form of corporate bonds, 38 per cent in mortgages and real estate, 9 per cent in United States and foreign government securities, 4 per cent in common and preferred stock, and 9 per cent in policy loans, cash, and other categories. The pattern of new investments currently being made by the industry, considered in relation to the rate of repayment of the different categories of investment holdings, is such that the distribution of assets in the years immediately ahead will remain about the same as at present.

The life insurance industry has achieved a high degree of investment diversification not only with respect to type of investment but also with respect to the geographic location of the investment, the in-

1. Total investment acquisitions by the industry amount to about $19 billion a year, but this figure is less meaningful from a capital-market standpoint because it is inflated by the rollover of short-term and temporary holdings (see James J. O'Leary, *1959 Record of Life Insurance Investments* [New York: Life Insurance Association of America, 1960], pp. 5–6).

dustrial or commercial classification of the borrower, the asset size of the borrower, and the size of the loan. Although the industry invests heavily in all sections of the country, the savings generated in the wealthier, more developed areas, such as the North and East, tend to exceed the need for capital in those regions. These additional savings flow through the life insurance industry to the newer, rapidly growing, South and West.[2] The investment operations of the industry thus increase the mobility of capital funds and tend to reduce regional differences in interest rates.

I. Impediments to Small Business Lending

There are a number of factors which make large-sized loans a natural field of operation for a life insurance company and which make it difficult for life companies to develop a substantial volume of loans to small business.

First, many companies in the industry generate a cash flow sufficiently large to make feasible individual loans ranging up to $50 million, and the largest companies occasionally make loans in amounts in excess of $100 million. In this size range, life insurance companies are competing as lenders not only with each other but with the open market for corporate bond flotations. The volume of their cash flow makes them effective and flexible competitors in this large-sized loan field.

A second factor tending to push life company investments toward large-sized loans is the impact of state laws and regulations, which in many cases stipulate standards more likely to be met by the larger corporate borrower. While these restrictions are often justified as a protection to the policyholder, the effect is nevertheless to limit quite severely the opportunities in the small business lending field. For example, life insurance companies operating under or complying with New York law are prohibited from making unsecured loans to unincorporated businesses. Since unincorporated businesses account for about 86 per cent of all business establishments in the United States and for an even higher proportion of small businesses, this provision has sweeping scope. It is an important reason, as shown later in this paper, for the relatively low volume of unsecured loans to small businesses by life companies. Many state laws also require that investments in corporate obligations meet tests based on the corporation's earnings during several successive years prior to the acquisition of

2. *Ibid.* For data on the geographic location of life insurance company investments see pp. 61–64. For the geographic relationship between reserves and investments see pp. 65 and 70.

such obligations. This requirement, in effect, prohibits loans to new businesses (unless guaranties are provided by an established business) and imposes standards less likely to be met by small than by large business establishments.

A third factor making it difficult for life insurance companies to develop a large volume of small business loans is the fact that the field organization of most life companies is confined largely to the insurance sales force. Few companies possess the extensive network of field investment offices which would be required to invest a substantial cash flow through a high volume of small loans. Even in the residential mortgage loan field, where the life industry accounts for 20 per cent of all residential loans in force, many life companies originate only a small proportion of their mortgage holdings, securing most of these loans through purchase or via mortgage bankers and brokers.[3]

The final factor limiting the volume of life company lending to small business is that commercial banks have expanded their operations in the term loan field, supplying an increasing proportion of medium-term loans, particularly to those industries such as trade, construction, and real estate which are dominated by small business units. Commercial banks, because the nature of their business requires an extensive local organization, are more intimately acquainted with smaller business establishments in the community and have the investment personnel on the scene to make and process such loans.

II. The Size Distribution of Life Insurance Company Loans

Despite numerous legal, organizational, and functional restrictions on life company participation in small business lending, an analysis of the size characteristics of life insurance company loans shows a surprisingly large volume of small loans and loans to small businesses. In 1957, the Life Insurance Association of America conducted a survey of life insurance lending to commercial and industrial firms at the request of Representative Wright Patman, chairman of the Select Committee on Small Business of the House of Representatives. The survey covered 67 of the larger life insurance companies whose combined assets at that time totaled almost $74 billion, accounting for 77 per cent of the assets of all life insurance companies. The principal conclusions which can be drawn from the survey relate to the size of

3. Although residential mortgage loans are normally small loans, they are not discussed in this paper, which is directed toward loans to small businesses rather than loans to individuals. During the last 15 years, United States life companies have provided financing for the purchase of between four and five million American homes.

loan, the size of the borrower, and the cyclical change in interest rate related to size of loan during the years 1953–56.

Size of loan.—The definition of what constitutes a small business loan and what constitutes a small business must necessarily be quite arbitrary. This is particularly true because average size of business varies greatly between industries. In the automobile industry, a company with $250 million in assets and thousands of employees may be considered small, whereas $1 million in assets and 500 employees constitutes a fairly large corporation in some other industries. As a rough rule of thumb, this paper will consider business loans not exceeding $250,000 as small. This is tantamount to a rough definition of a small business as one with assets of less than $1 million.[4]

Table 1 shows the size distribution of all commercial, industrial,

4. The maximum participation of the Small Business Administration in a single loan is $350,000, and for the period here under consideration it was $250,000. For the great majority of small businesses, long-term debt other than bank loans would constitute not more than 35 per cent of assets.

TABLE 1*

COMMERCIAL, INDUSTRIAL, AND PUBLIC UTILITY LOANS BY LIFE INSURANCE COMPANIES BY SIZE OF LOAN, AMOUNT AUTHORIZED, AND NUMBER OF BORROWING OPERATIONS

Total Size of Loan	1953		1954		1955		1956	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
	Amounts in Thousands of Dollars							
Under $50,000	2,007	48,804	2,072	50,446	2,064	50,725	1,953	50,121
$ 50,000–$ 100,000	815	56,419	934	63,672	981	67,108	1,075	73,834
$ 100,000–$ 250,000	858	127,033	1,072	160,684	1,170	179,754	1,214	184,456
$ 250,000–$ 1,000,000	595	269,327	809	378,212	863	396,591	823	393,175
$ 1,000,000–$ 5,000,000	362	713,117	468	856,837	448	855,629	498	1,007,836
$ 5,000,000–$ 10,000,000	83	402,003	75	371,916	104	496,329	99	504,984
$10,000,000 and over	146	3,055,779	175	2,613,224	158	2,306,576	188	2,874,258
Total	4,866	4,672,482	5,605	4,495,011	5,788	4,352,712	5,850	5,088,664
	As Per Cent of Total Number and Total Amount							
Under $50,000	41.3	1.0	37.0	1.1	35.7	1.2	33.4	1.0
$ 50,000–$ 100,000	16.8	1.2	16.7	1.4	17.0	1.5	18.4	1.5
$ 100,000–$ 250,000	17.6	2.7	19.1	3.6	20.2	4.1	20.7	3.6
$ 250,000–$ 1,000,000	12.2	5.8	14.4	8.4	14.9	9.1	14.1	7.7
$ 1,000,000–$ 5,000,000	7.4	15.3	8.4	19.1	7.7	19.7	8.5	19.8
$ 5,000,000–$ 10,000,000	1.7	8.6	1.3	8.3	1.8	11.4	1.7	9.9
$10,000,000 and over	3.0	65.4	3.1	58.1	2.7	53.0	3.2	56.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Includes investments in business and industrial bonds, public utility bonds, and mortgage loans to business and industry. The survey did not include investment in residential mortgages. The importance of residential mortgages is indicated by the fact that during 1953–56 the life insurance business as a whole made $16.7 billion of residential mortgage loans. Although exact figures are not available, it is well known that many of these residential mortgage loans were, in fact, small business loans. Likewise the survey does not include farm mortgage loans, which are really business loans (see n. 5).

and public utility loans made during the period 1953–56 by the life insurance companies participating in the 1957 survey. Small loans, i.e., those under $250,000, accounted for between 72 and 76 per cent of the number of all business loans made by these companies in the 4-year period. Even if the definition of a small business loan were narrowed to less than $50,000, loans in this category still accounted for 36 per cent of all business loans.

Table 1 also emphasizes the wide size range of life insurance company lending. Even though close to 90 per cent of all business loans by these companies were for amounts less than $1 million, they also lent substantial amounts in the $10-million-and-up category. During these 4 years, the companies represented in the survey authorized almost $11 billion in loans in the $10-million-and-up size group. The conclusions which may be drawn from this summary table are therefore that (*a*) life insurance companies make business loans varying over a very wide size range, from the under-$50,000 category characteristic of the size of much commercial bank lending to the over-$10 million category often associated with bond flotations in the open market and (*b*) a high percentage of life insurance company loans to business establishments falls within a size group which may properly be described as a small business loan.[5]

It was pointed out earlier that most life insurance company business loans are secured by real property. This fact is emphasized by a comparison of Tables 2 and 3, which divide the commercial and industrial loans covered by the 1957 survey into those which were secured by real property and those which were not so secured. Table 2 shows that, in the period 1953–56, about 85 per cent of all commercial and industrial mortgage loans made by these life insurance com-

5. Farm mortgage loans, most of which are really business loans, were not included in this survey. The following data indicate that the inclusion of farm loans would further increase the proportion of life company loans falling in the under-$50,000 category:

FARM MORTGAGE LOANS OF U.S. LIFE INSURANCE COMPANIES BY NUMBER OF LOANS, AMOUNT DISBURSED, AND AVERAGE AMOUNT OF LOAN

(Amounts in Thousands of Dollars)

	Number	Amount	Average Amount of Loan
1953	29,171	$394,485	$14
1954	28,456	390,322	14
1955	34,082	506,999	15
1956	29,204	487,953	17

Source: U.S. Department of Agriculture. Statistics represent companies holding slightly more than 97 per cent of the total mortgage holdings of all U.S. life insurance companies.

panies were for amounts under $250,000 and that over 40 per cent were for amounts under $50,000. Table 3 indicates that in the same period, about 13 per cent of business loans other than mortgage loans were in amounts less than $250,000. The contrast between the size distributions of these two types of business loans stems from a number of factors, among which are the following: (1) Many state laws prohibit life insurance company loans to unincorporated businesses except where secured by real property. (2) Life insurance company investment operations are often divided between at least two separate departments within the company, frequently known as the Bond Department (or the Securities Department or simply the Investment Department) and the Mortgage Loan Department (or the Mortgage Loan and Real Estate Investment Department). For reasons of custom, efficiency, or because of its closer contact with a wide geographic area, the Mortgage Loan Department often becomes in effect the small business loan department of the company in addition to performing its residential mortgage loan function. (3) The smaller the

TABLE 2

COMMERCIAL AND INDUSTRIAL MORTGAGE LOANS BY LIFE INSURANCE COMPANIES, BY SIZE OF LOAN, NUMBER OF AUTHORIZATIONS, AND AMOUNT AUTHORIZED

TOTAL SIZE OF LOAN (IN THOUSANDS)	1953		1954		1955		1956	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
	Amounts in Thousands of Dollars							
Under $25	1,064	15,983	1,083	15,825	1,067	15,343	934	13,625
$ 25–$ 50	915	32,153	970	34,143	986	35,066	1,010	36,244
$ 50–$ 100	788	54,839	898	61,616	960	65,732	1,047	72,017
$ 100–$ 250	789	116,893	962	145,561	1,065	163,810	1,111	171,485
$ 250–$ 1,000	371	163,519	551	249,506	616	272,969	621	275,598
$ 1,000–$ 5,000	135	272,799	177	354,046	175	332,281	216	433,395
$ 5,000–$10,000	7	53,362	14	94,000	25	163,950	21	139,097
$10,000 and over	1	40,000	4	113,000	9	142,000	8	127,300
Total	4,070	749,548	4,659	1,067,697	4,903	1,191,151	4,968	1,268,761
	As Per Cent of Total Number and Total Amount							
Under $25	26.1	2.1	23.2	1.5	21.7	1.3	18.8	1.1
$ 25–$ 50	22.5	4.3	20.8	3.2	20.1	2.9	20.3	2.8
$ 50–$ 100	19.4	7.3	19.3	5.8	19.6	5.5	21.1	5.7
$ 100–$ 250	19.4	15.6	20.7	13.6	21.7	13.8	22.4	13.5
$ 250–$ 1,000	9.1	21.8	11.8	23.4	12.6	22.9	12.5	21.7
$ 1,000–$ 5,000	3.3	36.4	3.8	33.1	3.6	27.9	4.3	34.2
$ 5,000–$10,000	0.2	7.1	0.3	8.8	0.5	13.8	0.4	11.0
$10,000 and over	*	5.4	0.1	10.6	0.2	11.9	0.2	10.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Less than 0.05 per cent.

borrower, the more likely it is that reliance must be placed on real property security in addition to credit standing.

Size of borrower.—Although there is a close relationship between size of loan and size of borrower, these two characteristics are, of course, not identical. Turning from size of loan to the asset size of the borrower, Table 4 shows that about 77 per cent of the number of all commercial and industrial mortgage loans made by these life insurance companies in the period 1953–56 were to businesses with less than $1 million in assets and that about 60 per cent were to businesses with less than $500,000 in assets. It is clear that the commercial and industrial mortgage aspect of life insurance company investment is predominantly a small business loan operation. Table 5, on the other hand, confirms the finding of Table 3 that only a relatively small proportion of the non-mortgage business loans of these life insurance companies was to businesses of a size which would usually be described as small.

Interest rates by size of loan.—The 1957 survey of life insurance company lending also provides interesting information on the rela-

TABLE 3

NON-MORTGAGE COMMERCIAL AND INDUSTRIAL LOANS BY LIFE INSURANCE COMPANIES, BY SIZE OF LOAN, NUMBER OF BORROWING OPERATIONS, AND AMOUNT AUTHORIZED

TOTAL SIZE OF LOAN (IN THOUSANDS)	1953		1954		1955		1956	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
	Amounts in Thousands of Dollars							
Under $50	16	394	13	313	5	150	3	81
$ 50–$ 100	16	868	11	571	14	832	13	825
$ 100–$ 250	51	6,788	48	6,176	67	10,473	54	8,028
$ 250–$ 1,000	171	79,228	194	100,762	193	97,182	164	97,823
$ 1,000–$ 5,000	171	348,389	222	418,089	218	453,599	236	510,597
$ 5,000–$10,000	49	221,971	31	208,418	62	299,705	64	323,230
$10,000 and over	68	2,118,848	73	1,890,146	87	1,816,776	111	2,450,382
Total	542	2,776,486	592	2,624,475	646	2,678,717	645	3,390,966
	As Per Cent of Total Number and Total Amount							
Under $50	3.0	*	2.2	*	0.8	*	0.5	*
$ 50–$ 100	3.0	*	1.9	*	2.1	*	2.0	*
$ 100–$ 250	9.4	0.2	8.1	0.2	10.4	0.4	8.4	0.2
$ 250–$ 1,000	31.5	2.9	32.8	3.9	29.9	3.6	25.4	2.9
$ 1,000–$ 5,000	31.5	12.6	37.5	15.9	33.7	17.0	36.6	15.1
$ 5,000–$10,000	9.0	8.0	5.2	8.0	9.6	11.2	9.9	9.5
$10,000 and over	12.6	76.3	12.3	72.0	13.5	67.8	17.2	72.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Less than 0.05 per cent.

tionship between size of loan and interest rate on the loan and on the relative cyclical change in interest rates for small and large loans.

Table 6 gives the average interest rate by size of loan for each of the years 1953–56. As might be expected, there is an inverse correlation between interest rate and size of loan, with larger loans commanding lower rates than smaller loans. The principal reasons for this relationship are that (*a*) larger firms generally have a higher credit standing, i.e., the portion of interest which is compensation for risk can be smaller, and (*b*) small loans are more expensive to make and administer, i.e., administrative expenses, while not identical for small and large loans, do not vary greatly with size of loan, so that

TABLE 4*

COMMERCIAL AND INDUSTRIAL MORTGAGE LOANS BY LIFE INSURANCE COMPANIES BY ASSET SIZE OF OBLIGOR, NUMBER OF AUTHORIZATIONS, AND AMOUNT AUTHORIZED

ASSET SIZE OF OBLIGOR (IN THOUSANDS)	1953		1954		1955		1956	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
	Amounts in Thousands of Dollars							
Under $25	21	1,059	35	2,672	18	1,163	29	3,623
$ 25–$ 50	78	1,752	87	2,005	64	1,849	67	2,654
$ 50–$ 100	212	6,243	194	7,084	162	7,741	194	8,100
$ 100–$ 500	476	36,825	678	49,358	630	44,764	701	57,673
$ 500–$1,000	259	36,355	276	52,091	301	45,598	417	73,173
$1,000–$5,000	195	57,104	200	76,843	241	85,836	287	133,150
$5,000 and over	113	82,673	157	114,258	139	167,248	147	167,741
Total	1,354	222,011	1,627	304,311	1,555	354,199	1,842	446,114
	As Per Cent of Total Number and Total Amount							
Under $25	1.5	0.5	2.2	0.9	1.2	0.3	1.6	0.8
$ 25–$ 50	5.8	0.8	5.3	0.7	4.1	0.5	3.6	0.6
$ 50–$ 100	15.7	2.8	11.9	2.3	10.4	2.2	10.5	1.8
$ 100–$ 500	35.2	16.6	41.7	16.2	40.5	12.7	38.1	12.9
$ 500–$1,000	19.1	16.4	17.0	17.1	19.4	12.9	22.6	16.4
$1,000–$5,000	14.4	25.7	12.3	25.3	15.5	24.2	15.6	29.9
$5,000 and over	8.3	37.2	9.6	37.5	8.9	47.2	8.0	37.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Responses to the survey did not in all cases provide a breakdown by asset size of borrower. See difference in number and amount of loans in Tables 2 and 4.

the portion of interest which is compensation for expenses is smaller for large than for small loans.

Reading across Table 6 from left to right, it is clear that the capital market eased from 1953 to 1954 and then tightened in 1955 and 1956. What was the relative impact, on small and on large loans, of this cyclical movement in the capital market? Table 7 shows the absolute and percentage change in interest rates, by size of loan, over this cycle. It is clear that interest rates on large loans change more, on

TABLE 5

NON-MORTGAGE COMMERCIAL AND INDUSTRIAL LOANS BY LIFE INSURANCE COMPANIES, BY ASSET SIZE OF OBLIGOR, NUMBER OF AUTHORIZATIONS,* AND AMOUNT AUTHORIZED

ASSET SIZE OF OBLIGOR (IN MILLIONS)	1953		1954		1955		1956	
	Number*	Amount	Number*	Amount	Number*	Amount	Number*	Amount
	Amounts in Thousands of Dollars							
Under $1	40	6,517	48	7,365	31	5,746	29	6,509
$ 1–$ 2	58	30,739	41	21,459	60	22,954	51	23,133
$ 2–$ 5	110	85,717	143	88,037	129	109,623	140	133,702
$ 5–$ 10	114	146,447	148	143,171	126	151,271	140	184,965
$ 10–$ 50	231	440,516	289	661,699	344	650,408	357	687,732
$ 50–$100	107	304,874	88	249,446	172	324,120	186	569,749
$100–$500	283	777,916	179	713,136	235	1,098,145	342	1,128,725
$500 and over	156	983,760	119	740,162	131	316,450	168	656,451
Total	1,099	2,776,486	1,055	2,624,475	1,228	2,678,717	1,413	3,390,966
	As Per Cent of Total Number and Total Amount							
Under $1	3.6	0.2	4.5	0.3	2.5	0.2	2.0	0.2
$ 1–$ 2	5.3	1.1	3.9	0.8	4.9	0.9	3.6	0.7
$ 2–$ 5	10.0	3.1	13.6	3.4	10.5	4.1	9.9	3.9
$ 5–$ 10	10.4	5.3	14.0	5.4	10.3	5.6	9.9	5.4
$ 10–$ 50	21.0	15.9	27.4	25.2	28.0	24.3	25.3	20.3
$ 50–$100	9.7	11.0	8.3	9.5	14.0	12.1	13.2	16.8
$100–$500	25.8	28.0	17.0	27.2	19.1	41.0	24.2	33.3
$500 and over	14.2	35.4	11.3	28.2	10.7	11.8	11.9	19.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* In contrast to the data of Table 3 on the number of *borrowing operations*, the data shown in this table for the number of *authorizations* contain a considerable amount of duplicate reporting on bond issues in which more than one insurance company participated. This duplication occurs particularly in the higher-loan categories where a borrowing corporation obtains funds through a direct placement with a number of companies or through a public issue purchased by a number of life insurance companies and many other investors.

both the up and the down size of a capital market cycle, than do rates on small loans, so that small borrowers lose interest-wise relative to large borrowers during easy-money periods and gain relatively during tight-money periods.[6] Referring back to Table 1, it is also interesting to note that the data from this survey do not support the common notion that during tight-money periods it is the small borrowers who are squeezed out. The percentage of life insurance company loans under $250,000, on both a number and an amount basis, was virtually identical for the easy-money year 1954 and the tight-money year 1956. The proportion of loans over $5 million remained almost constant throughout the period.

III. Prudential Insurance Company Commercial and Industrial Loan Department

It has been pointed out in the foregoing discussion that, although life insurance companies have built up a very large volume of small business loans secured by real property, there are many legal and other impediments to the development of an appreciable volume of

6. The same phenomena is observable in the commercial bank lending field. For changes in short-term bank rates by size of loan for the period 1954–56 see *Federal Reserve Bulletin*, June, 1957, p. 675. The tears which politicians shed in behalf of small business during tight-money periods apparently are motivated more by the relative number of votes than by the relative movement of interest rates.

TABLE 6

Commercial, Industrial, and Public Utility Loans by Life Insurance Companies by Size of Loan, Average Amount Authorized and Average Interest Rate

Total Size of Loan	1953		1954		1955		1956	
	Average Amount	Average Rate	Average Amount	Average Rate	Average Amount	Average Rate	Average Amount	Average Rate
	Amounts in Thousands of Dollars							
Under $50,000	24	4.97	24	4.96	25	4.95	26	5.15
$ 50,000–$ 100,000	69	4.80	68	4.79	68	4.75	69	5.00
$ 100,000–$ 250,000	147	4.74	150	4.64	154	4.66	153	4.92
$ 250,000–$ 1,000,000	428	4.66	449	4.54	436	4.61	446	4.90
$ 1,000,000–$ 5,000,000	1,308	4.48	1,391	4.29	1,403	4.38	1,448	4.80
$ 5,000,000–$10,000,000	1,331	4.28	1,603	4.04	2,287	4.28	2,225	4.60
$10,000,000 and over	2,702	3.90	2,465	3.74	2,657	3.98	2,860	4.36
Grand average	742	4.11	658	4.00	638	4.20	723	4.55

non-mortgage loans to small business. Further evidence that it is not an easy task for a life company to generate a large volume of non-mortgage small business loans is provided by the experience of the Commercial and Industrial Loan Department[7] of the Prudential Insurance Company of America.

CILD was created in 1956, as a third investment department in addition to the existing Bond Department and Mortgage Loan and Real Estate Investment Department. The primary function of the new department has been (*a*) to emphasize loans to small and moderate-sized business, where security for the loan is not primarily the pledge of real property,[8] and (*b*) to emphasize extensive geographic cover-

7. Hereafter referred to as "CILD."

8. The Mortgage Loan and Real Estate Investment Department continues to make a very large volume of mortgage loans to small business in addition to its other operations, and the Bond Department handles all large loans where primary security is the credit standing of the borrower.

TABLE 7

ABSOLUTE AND PERCENTAGE CHANGES IN AVERAGE INTEREST RATES ON COMMERCIAL, INDUSTRIAL, AND PUBLIC UTILITY LOANS OF LIFE INSURANCE COMPANIES, BY YEAR AND BY TOTAL SIZE OF LOAN (RATES IN PER CENT PER ANNUM)

TOTAL SIZE OF LOAN	1953–54	1954–55	1955–56	1954–56
	Absolute Increase (+) or Decrease (−)			
Under $50,000	−0.01	−0.01	+0.20	+ 0.19
$ 50,000–$ 100,000	− .01	− .04	+ .25	+ .21
$ 100,000–$ 250,000	− .10	+ .02	+ .26	+ .28
$ 250,000–$ 1,000,000	− .12	+ .07	+ .29	+ .36
$ 1,000,000–$ 5,000,000	− .19	+ .09	+ .42	+ .51
$ 5,000,000–$10,000,000	− .24	+ .24	+ .32	+ .56
$10,000,000 and over	−0.16	+0.24	+0.38	+ 0.62
Grand average	−0.11	+0.20	+0.35	+ 0.55
	Per Cent Increase (+) or Decrease (−)			
Under $50,000	−0.20	−0.20	+4.04	+ 3.83
$ 50,000–$ 100,000	−0.21	−0.84	+5.26	+ 4.38
$ 100,000–$ 250,000	−2.11	+0.43	+5.58	+ 6.03
$ 250,000–$ 1,000,000	−2.58	+1.54	+6.29	+ 7.93
$ 1,000,000–$ 5,000,000	−4.24	+2.10	+9.59	+11.89
$ 5,000,000–$10,000,000	−5.61	+5.94	+7.48	+13.86
$10,000,000 and over	−4.10	+6.42	+9.55	+16.58
Grand average	−2.68	+5.00	+8.33	+13.75

age to insure that the company serves the entire United States and Canada.

Table 8 shows the percentage distribution of CILD loans, classified by size of loan and asset size of borrower, during the period July 1, 1956, to September 30, 1960. Of the number of all loans during this period, 8.2 per cent were to borrowers with assets less than $1 million, and 64.0 per cent were to borrowers with assets less than $5 million. Although the time period is different, some basis for comparison is provided by Table 5, which shows that all survey companies reported 3.1 per cent of non-mortgage loans to borrowers with assets less than $1 million and 18.4 per cent to borrowers with assets less than $5 million. It is clear that CILD has found it difficult to generate

TABLE 8

PERCENTAGE DISTRIBUTION OF LOAN APPROVALS OF COMMERCIAL AND INDUSTRIAL LOAN DEPARTMENT, PRUDENTIAL INSURANCE COMPANY OF AMERICA, BY LOAN SIZE AND BY ASSET SIZE OF BORROWER, JULY 1, 1956—SEPTEMBER 30, 1960

Size of Loan	Per Cent Distribution	Asset Size of Borrower	Per Cent Distribution
Under $250,000	10.8	Under $1 million	8.2
$ 250,000-$ 499,000	22.3	$ 1,000,000-$ 1,999,000	21.9
$ 500,000-$ 999,000	29.0	$ 2,000,000-$ 4,999,000	33.9
$1,000,000-$1,999,000	20.3	$ 5,000,000-$ 9,999,000	17.5
$2,000,000-$4,999,000	14.2	$10,000,000-$49,999,000	15.4
$5,000,000 and over	3.4	$50,000,000 and over	3.1
Total	100.0		100.0

a substantial volume of non-mortgage loans to "small" businesses with assets under $1 million but has been successful in emphasizing loans to "moderate"-sized businesses in the $1–$5 million category.

A comparison of size of CILD loans in Table 8 with size of survey company loans in Table 3 confirms the above conclusion. Of all CILD loans, 8.5 per cent were in amounts under $250,000, and 59.2 per cent were in amounts under $1 million. The comparable percentages from Table 3 are 12.8 and 42.6 per cent.[9]

At the time of the creation of CILD, the company had no illusions regarding the ease of generating a substantial volume of small business loans. At least one other major company had attempted to build a department with a $250,000 top loan limit and after several years

9. Very similar percentages have been derived from an analysis of all (life insurance company and other) direct placements reported by the *Investment Dealer's Digest* for the year 1955 (see Robert Soldofsky, "The Size and Maturity of Direct-Placement Loans," *Journal of Finance*, XV [1960], pp. 42–43).

of operation had developed only a handful of loans. It was recognized from the beginning that the small and moderate-sized loan field requires well-trained personnel with broad industry knowledge and that a good deal more work is necessary to build a sizable portfolio of this type than would be the case with large loans to borrowers of nationally recognized credit standing. Despite these difficulties, the record of CILD thus far has been encouraging, and the department will undoubtedly serve a more and more useful purpose, both to the company's policyholders and to the economy generally, as its operations become better known and as it is able to expand its staff to serve more of the potential.

IV. Conclusions

1. There are many legal, organizational, and functional impediments to the development of a substantial volume of small business loans by a life insurance company.

2. The life insurance industry has, however, been able to develop a large volume of small business loans where the borrower can pledge real property. Small business loans are therefore usually made through the Mortgage Department rather than the Bond Department.

3. It is difficult for a life insurance company to build up nonmortgage loans to small business. Where the life insurance company operates nationally and where it is willing to devote a good deal of effort to emphasizing this type of business, there is a reasonable prospect of success in the development of loans in the size category $250,000–$1,000,000 to businesses having assets of $1–$5 million.

SECURITY PURCHASES OF SMALL BUSINESS INVESTMENT COMPANIES

ALGIE CHOATE
Small Business Administration

IN AUGUST, 1958, Congress passed the Small Business Investment Act of 1958, which, in my opinion, *can* be the creation of one of the most important financing institutions yet devised by our economy. I would like for you to remember that I said this *can* be. I say this because in any pioneering venture there are bound to be problems occurring, and the manner in which these problems are resolved will determine the future effectiveness of this new banking system which Congress has created.

The idea of a capital banking structure designed to supply equity and loan capital to small business is not new. The report of the British Committee on Finance and Industry (MacMillan Report), published in 1931, recommended that a private investment company be formed, devoted primarily to the capital requirements of smaller industrial and commercial enterprises. This report lay dormant until July, 1945, when its ideas were put into practical use by the establishment of the Industrial and Commercial Finance Corporation, Limited, as a private enterprise, financed by a group of banks, including the Bank of England, British clearing banks, and the Scottish banks. The same ideas were crystallized in Canada in 1944 with the establishment of the Industrial Development Bank as a subsidiary of the Bank of Canada. This bank was authorized to provide loan capital to small and new industries by direct lending, by guaranteeing loans, or by other means found to be acceptable.

In the United States the need for some formal, organized financial machinery to supply long-term loan funds and equity capital to small business has long been recognized. The need was brought to a head at a hearing before the Select Committee on Small Business of the House of Representatives on November 21, 1957, when William McChesney Martin, Jr., chairman of the Board of Governors of the Federal Reserve System, agreed that the board would undertake a study of the financing needs of small business to ascertain the facts. By March, 1958, Parts I and II of the report had been completed. The entire report is called *Financing Small Business*. Part I consists of fifteen "Background Studies" of existing data and materials on

small business and "Observations Based on the Background Studies." Part II presents the results of six "Surveys of Credit and Capital Sources" and a "Review of the Survey Findings" based on data obtained through questionnaires and interviews from commercial banks, trade creditors, commercial finance companies, factors, life insurance companies, investment companies, and other suppliers of credit and capital. Part III is designed to obtain information on the financial structure, practices, and problems of small business through interviews or questionnaires. It will report what the small businessmen themselves believe are their problems.

The Board of Governors will not come to final conclusions until the entire study has been completed, but the following tentative findings have been drawn from Parts I and II. The availability of short-term credit (less than a year's duration) is fairly adequate; as the term becomes longer, the availability of credit becomes less and less adequate. The availability of long-term loan and equity capital cannot be considered adequate. In the words of Chairman Martin, "There is a gap in the existing structure of financing institutions which lies in the longer-term debt and equity capital areas" and the existence of this gap "may be inhibiting to the prosperity and growth of the nation." This statement points out that the lack of the *facility* might have been interfering with the best employment of capital funds.

This need for the creation of an appropriate facility had long been recognized by Congress. During every year of the past decade Congress has considered some proposal for a capital banking structure for the benefit of small business, and this act is the result of their deliberations.

The S. B. Investment Act allows the creation of privately owned, privately capitalized investment companies—I think a better name would be "capital banks." They have three functions. First, they provide long-term loan funds to what are legally defined as small business concerns; these loans have a minimum term of 5 years and a maximum term of 20 years. The second function is to provide equity capital to such small business concerns, and the third is to provide advisory and consulting services on a fee basis.

At the present time, 170 of these small business investment companies have been licensed to operate under this act. These companies have a total capitalization of $210 million, of which approximately $30 million have been provided by the SBA through the purchase of subordinated debentures in the licensees. This is encouraging, for it indicates that private capital, given the proper incentive, has moved

and will move into a much needed area, thus obviating the necessity for the use of federal funds.

It is interesting to note the various types of SBIC's which have been formed. They fall primarily into four categories. The first is what I would call the "pure leverage company"; this company primarily makes nothing but long-term, collateralized loans and depends on its profit from a breakage in interest rates. Almost without exception, this company is the minimum-sized company and is usually run by one or two individuals in conjunction with some other business.

The second type of company is what I would call the "capital gains company," whose objective is the accumulation of equity securities in promising small business concerns with the expectation of selling these securities at a future date for capital gains profit. Almost all the larger firms which have had public financing fall into this category.

A third type of SBIC is what I would call the "collateral benefit company." Such companies are formed by industry or trade groups. For example, the wholesale-grocery industry has been very active in this field, forming SBIC's to finance independent retail grocers, with the normal expectation of retaining or expanding the market for their products.

The last category is the "Pro Bond Publico" type company, which is formed quite often by groups of interested citizens of a community without expectation of large profits but rather for the general economic development of their community and its environments. Some banks have also formed such companies.

The existing licensees are an enthusiastic group, for even in their short period of experience they have found that the demand for this type of money exceeded their expectations. One licensee contacted me 17 days after receiving his license and reported that in that period of time he had received an average of $100,000 of applications per day. He was licensed in August, 1959, and in February, 1960, he testified before the Select Committee on Small Business of the Senate and reported that at that time he had over $7.5 million in applications. At the National Association of Small Business Investment Companies convention in Washington, D.C., in December, 1960, he reported to me that his total now was over $12 million. With only a minimum-sized company he has been able to be, to say the least, very selective.

However, the licensees are not sitting back and marking time but rather are putting their capital to work in an admirable manner. As of September 30, 1960, $32,291,000 had been placed in the hands of small business concerns. This is the result of a report by 130 com-

panies who were licensed at that time. But bear in mind that only 79 of those companies had been in business six months or more.

Before breaking down this total financing, let me explain that, up until June, 1960, the only way an SBIC could provide equity capital to the small business concern was through the purchase of convertible debentures of such concerns. In June, 1960, the President signed a bill which allows the SBIC now to take an equity position in almost any manner it wishes, through the purchase of common stock or any combination of corporate securities. The SBA then had to write regulations which had to be published in the *Federal Register* 30 days before becoming effective; therefore, these figures as of September 30 reflect only one month's activity under the new law.

As of September 30, 1960, the total financing was broken down in the following manner: 49.5 per cent of the total financing took the form of long-term, collateralized loans; 47.6 per cent was through the purchase of convertible debentures; and 2.9 per cent was through the purchase of other equity securities of small business concerns. We have no latter statistics; however, from my observations in the last three months, the trend is definitely toward the purchase of equities in the small business concern, and I believe that you will see in the future a ratio evolve to be 75 per cent in equities and 25 per cent in long-term loans.

In viewing this program in 1958 from the standpoint of an investment banker, I was very enthusiastic. After having worked with it for two years, I am even more enthusiastic, for I see evolving a second national banking system. As I said earlier, there are 170 licensees to date. There are 151 other proponents in various stages of receiving a license. In November we received 31 proposals, and in December we have received 26, and more interest is indicated by the public. The licensed companies have stepped up their activities, and I am convinced that they are doing the job that Congress intended. In my opinion, there are two major problems connected with this program, both of which can and will eventually be solved. The first is the lack of education of the small business community to the fact that the SBIC is in existence and in the extent of the aid which the SBIC can provide. This is not a serious problem and will be taken care of in obvious ways.

The primary problem, however, is the availability of funds to SBIC's after they have invested their initial capital and have taken advantage of their borrowing power from the SBA under Section 303 of the act. Quite a few firms are now in the position of having

put out all their capital and the funds received from SBA and are experiencing great difficulty in being able to hypothecate the paper which they have created in normal channels. Quite often this paper is not a legal investment for insurance companies. Commercial banks have expressed the feeling that this program lacks enough experience for them to be able to evaluate properly the portfolios of the SBIC's and establish a line of credit for them. Up until this point the only avenue that the SBIC has had is to seek additional capital through the route of public offerings. However, the minimum-sized-company does not seem to attract any underwriting.

Senator John Sparkman, chairman of the Select Committee on Small Business of the Senate, has suggested that this problem might be alleviated by empowering the SBA to purchase from the SBIC's subordinated debentures matching the SBIC's capital up to $1 million, then increasing the borrowing capacity of the SBIC from the SBA from 50 per cent of its capital and surplus to 100 per cent. This may be the answer to the problem; however, the very experience of the SBIC program has shown that private capital will rise to an occasion if given the proper incentive. I firmly believe that it will in this case and that eventually you will find that warehouses for SBIC paper will be formed and will be operated profitably by the same type of pioneers as those who have made the SBIC program successful up to date.

DISCUSSION

HAROLD W. STEVENSON:* This session on long-term financing for small business has enabled us to learn of the extent of such activity by two institutional investor groups. It has also helped us to understand the situations in which investment bankers assist companies in "going public." Generalizations about the investment banker function are difficult, because small businesses differ, as do investors and investment bankers. As Mr. Miller cautions, the investment banker should be viewed as a "middle-man" bringing capital and business together, and not a "miracle-man." My comments are focused on the middle-man function.

Mr. Miller, at the outset, deserves congratulations for his well-prepared and well-delivered paper and also my acknowledgment for early receipt of an advance copy (perhaps not reflected in my comments). Quite eloquently, he expresses the sentiments which his industry colleagues would certainly indorse.

Banker help is extended to offerings of well-managed, strong-growth companies, but general involvement in this area is limited through the problems and risks associated with small offerings. While nothing is out of order in the explanation for these actions, I continue to wonder what the bankers "really think" about certain aspects of small business financing. After briefly summarizing Mr. Miller's main points, I should like to raise questions regarding the middle-man function which still puzzle me and which might warrant future study.

Investment bankers perform certain functions in a stock offering regardless of offering size—investigation, advice, registration help, formation of underwriting groups and market maintenance. For small offerings certain costs do relate heavily to funds raised. But size is not the important criterion for investment banker help. Situations reflecting strong profit and option potential, sound management, repeat business, and industry popularity enhance the likelihood of banker assistance. Bankers are restrained, however, by companies in the promotion stages, weak management, heavy business risks, and acute problems of market maintenance.

Although, to a considerable extent, size, quality, and strong market interest appear to justify banker action, to what extent does the purpose of an offering influence the decision for better-than-marginal

* University of Minnesota.

companies? Does it matter that an offering may be to establish a market for estate purposes, to pave the way for future offerings, to raise funds, to facilitate professional management, to achieve market advantage before merger? If "going public" may be an inevitable step for certain companies, can proper timing be established, and is there danger of going public "too late" as well as "too early"? To what extent do bankers really "screen" applicant companies, and could bankers be considered passive in preliminary contacts for public offerings? If bankers actively seek out only the easily placed security offerings, are the risk and reward relationships reasonable? Statistics reveal that numerous public offerings, some with banker assistance, are made annually to the public, but can we ascertain the relative success of these offerings? Likewise, how does the market performance and the maintenance problem actually work out for popular and marginal offerings?

Mr. Miller has presented an interesting and provocative paper on investment banker views on companies going public. For me, there remain some questions about this middle-man function that may be revealed in further discussions or research.

ROBERT M. SOLDOFSKY:* I have enjoyed the three fine papers that have been read. I wish that I had time to comment on each of them. A considerable amount of work is being done at the University of Iowa relating to the financing of small business. But my primary assignment today is to comment on Dr. McKinley's paper.

Dr. McKinley has made an excellent statement of the position usually taken by individuals associated with life insurance companies. I am very sympathetic with problems faced by life insurance companies as they make or consider making loans to smaller businesses. These comments will be related to long-term non–real estate loans. First, I shall comment briefly upon regulatory and organizational impediments to extending such loans, and the competition of the commercial banks for such business. Second, I shall comment on several aspects of the structure of life insurance company loans to small business.

Undoubtedly, state laws limit the opportunities of life insurance companies to lend to small businesses. However, when individual life insurance companies or groups of such companies have been intensely concerned about particular aspects of the law, they have led campaigns to change the law. Many of you will remember the contest in New Jersey about variable annuities.

* University of Iowa.

Most partnerships are too small, too unstable, or too poorly managed to merit consideration by life insurance companies. About 80 per cent of the nation's proprietorships and partnerships have three or less employees; 92 per cent have seven or less employees. More than one-fourth of all corporations, some 125,00 businesses, have twenty or more employees. (Some 44,000 corporations have $500,000–$1 million of assets; another 30,000 have $1–$2.5 million of assets.) These corporations are probably large enough to merit consideration for non–real estate loans by life insurance companies. It would be interesting to know to what extent life insurance companies have explored the market of eligible borrowers. Dr. McKinley's Table 5 reports less than 50 non–real estate loans in any one year from 1953 to 1956 made to corporations with assets under $1 million. If the asset size is raised to $2 million, the number is still under 100 per year. My own studies indicate no important change in the number of such loans since 1956. There are certainly more potential borrowers for life insurance companies among the smaller corporations. The SBA made more than 500 such loans in fiscal 1957 in the $100,000–$250,000 size class.

It is true that most communities have local commercial banking facilities and that life insurance companies generally lack local personnel trained in the analysis of the long-term credit worthiness of small businesses. However, it does not follow that the commercial banks, especially in communities of about 50,000 or less, do have such trained personnel. Commercial banks make relatively few small, non–real estate loans with original maturities of more than 5 years. In short, the commercial banks and the insurance companies are each very willing that the other make the 5–15-year non–real estate loans. Time does not permit me to make some positive suggestions here for overcoming this problem.

In fairness to Dr. McKinley and the Prudential Life Insurance Company, I must add that Prudential has been more active in this field than most other large companies. In a check I made of the lending policies of life insurance companies for the period covered by the data Dr. McKinley quotes, I found that two of the ten largest life insurance companies made no non–real estate loans for less than $1 million and that five of these companies made no such loans for less than $500,000. When the non–real estate loans of the smaller life insurance companies down to the two-hundredth largest were reviewed, the frequency of such small loans actually decreased.

There are several aspects of dimensions of smaller, non–real estate loans not mentioned by Dr. McKinley. We have already noted that

such loans as are made are distributed very unevenly among insurance companies. Other dimensions of interest are original maturity, original maturity cross-classified by loan size, and the industrial distribution of non–real estate insurance company loans. Again using 1955 data, about 10 per cent of the direct placements for $250,000 or less had original maturities of less than 10 years; about 25 per cent had maturities of 10 years; and the balance, 65 per cent, had maturities of more than 10 years. The SBA loans are limited to 10 years. In fiscal 1957 the SBA dollar loan volume was twenty to thirty times larger than insurance company private placements when loan size and original maturity are limited to $250,000 and 10 years, respectively.

A substantial proportion of these small loans made by life insurance companies has been extended to public utilities and finance companies. The SBA, so far as I know, did not make any loans to companies in either of these industries.

I conclude that the SBA and the insurance companies have not been competing (and are probably not now competing) for loans. In the past, insurance companies have shown little interest in making the kind of loans that the SBA has been making. Even if the maximum loan size and maturity of SBA loans be increased somewhat, the amount of competition between them will probably be very small. Before the SBA can make a loan, the loan must first be declined by a private lender. If an insurance company were interested in buying any loan in the SBA portfolio, I believe that could be done under present regulations. I would be happy to see more life insurance companies make more non–real estate loans for less than $1 million and especially for less than $500,000. If the life insurance companies would make the intermediate-term loans for less than $350,000 that the SBA is now making, the SBA's scope of operations could be reduced.

IMPACT OF PENSION FUNDS

TRENDS IN PRIVATE PENSION FUNDS*

EUGENE MILLER
McGraw-Hill Publishing Company, Inc.

PRIVATE PENSION FUNDS have grown into a financial giant. In 1941 their assets totaled a mere $3 billion. At the end of 1959 they amounted to $45.7 billion ($28.2 billion in non-insured plans, and $17.5 billion in the hands of life insurance companies).[1] Currently, there are over 50,000 qualified pension plans covering over 19 million workers. By 1965, the asset value of these funds is expected to grow to $77 billion.[2]

To give some yardstick of the sums involved in these pension plans, current payments into them are greater than the cost of the atomic bomb or the combined budgets of California, New York, and a dozen other states.[3] In terms of payroll costs, private pensions are equal to approximately 3.4 per cent of total employee compensation in 1959. In terms of providing support for the 15.5 million Americans who are over sixty-five, private pension plans account for about 15 per cent of the funds they now receive.[4] Despite the fact that pension funds are a relatively new financial institution, they already dwarf in size mutual savings banks and are overtaking savings and loan associations in terms of total assets. Furthermore, these funds are now the largest net purchaser of common stocks. They are also among the largest buyers of bonds, and they have recently become a major buyer of mortgages. The insurance companies have also felt the impact of pension funds. Pension reserves totaled $17.5

* This paper, the following paper by Victor L. Andrews, and the discussions by Paul P. Harbrecht and Roger Murray were presented at a meeting of the American Finance Association held in St. Louis on December 30, 1960. The meeting was under the chairmanship of Joseph H. Taggart, New York University.

1. *Corporate Pension Funds, 1959* (Release No. 1680, May 31, 1960, Branch of Economic Research, Securities and Exchange Commission); hereafter referred to as "SEC Report."

2. *Ibid.*, p. 3.

3. "What Is Ahead for Health, Welfare, and Pension Programs?" Speech by Martin E. Segal before National Conference of Health and Welfare Plans, Trustees, and Administration, Los Angeles, California, October 17, 1959.

4. "A Special Report on Private Pension Funds," *Business Week*, January 31, 1959; hereafter referred to as "Business Week Special Report." Cf. also: "Benefit Payments on the Rise," *Business Week*, October 3, 1959, p. 150.

billion, or 19 per cent, of the insurance industry's total reserves in 1959.[5]

Thus, by any number of criteria, the growth of these pension funds has been spectacular. My objective in this paper is to investigate in some detail some of the trends that have emerged in the course of this growth and, in addition, to try to gauge the significance of these trends. I propose to discuss in Part I various developments that have taken place in retirement plans themselves. In Part II, I shall deal with changes that have taken place in methods of funding. In Part III, I shall investigate the investment policies that pension funds have used throughout the postwar period.

I. Trend in Retirement Plans

Prior to 1949, pension plans were usually voluntary undertakings by companies, and management had a relatively free hand in their design. However, in 1949, the principle was established that pensions were a legitimate subject for collective bargaining. Union demands for pensions that began then have resulted in the so-called pattern, or multi-employer, plan. These pattern plans refer to those adopted by a certain number of the international unions and which have been negotiated with only slight variations with individual companies or groups of companies. In most of these plans the pensions provided are established in flat dollar amounts which may vary with years of service but not with the compensation rate of employees. They are generally non-contributory.

The term "conventional plans" will refer in this paper to those plans which provide benefits that vary with both years of service and with compensation rates and are not of the pattern type.

In this section, I draw heavily on material supplied by the Bankers Trust Company's Study of Industrial Retirement Plans, as well as material of the Martin E. Segal Company, pension consultants.[6]

Eligibility requirements.—In most pattern plans, employees are automatically covered from their first day on the job. Of 77 such plans studied by Bankers Trust, 68 had no eligibility requirement. In conventional plans the trend is to make eligibility requirements less restrictive. The Bankers Trust Study shows that, of conventional pension plans started or amended during the 1956–59 period, 31 per cent set no eligibility requirements. In the 1953–55 period, 29

5. *Life Insurance Fact Book* (New York: Institute of Life Insurance, 1960), pp. 34–35.

6. *Study of Industrial Retirement Plans* (New York: Bankers Trust Co., 1960), hereafter referred to as "Bankers Trust Study."

per cent of the plans studied had no eligibility requirements for plan membership, and the figure was 21 per cent for plans studied in the 1950–52 period. Most of the conventional plans amended in recent years reduced both the service and the age requirements for eligibility.

Employee contributions.—Pattern plans generally do not call for employee contributions, and fewer conventional plans now call for such contributions. But the latter trend is slight.

The Bankers Trust Study showed that, of the plans started or amended in the 1956–59 period, 31 per cent required employees to contribute, approximately the same percentage as in the plans studied in the 1953–55 period. Of newly adopted plans, 52 per cent were contributory, compared with 51 per cent in the 1953–55 study.

Compulsory retirement.—Many questions have been raised recently over whether retirement at sixty-five should be normal and often mandatory. Management has discovered that many of its sixty-five-year-old employees are still in top physical and mental condition and is wondering whether it should really force them arbitrarily into retirement. Shell Oil Company, a few years ago, took an important step toward delaying retirement. It originally had compulsory retirement at age sixty but later extended this cutoff date to sixty-five—but with the man staying on until sixty-five getting exactly the same pension as the person who left at sixty. Now the company has added a pension premium for those who work the extra five years and hopes that it will induce more workers to stay on. Shell's top 200 or so executives, however, still have to retire at sixty.[7]

The cost factor is another reason behind the consideration of retirement age. As the life-span increases, the cost of providing pensions for workers beginning at age sixty-five goes well beyond the original actuarial calculations. A poll of 162 company presidents recently revealed that a great many were worried about the "prohibitive future cost" of current retirement policies. Over half suggested that retirement at seventy, or even seventy-five, would be more common in the future.[8] Yet, to date, the data from both conventional and pattern plans show no strong trends in this direction or in the direction of lower retirement ages which had been advocated by some labor leaders.

Among practically all conventional plans, normal retirement age

7. *Business Week Special Report*, p. 14.

8. *Ibid.*, p. 14.

continues to be sixty-five. Some recognition, however, is now being given to the exacting requirements of certain occupations, and a limited number of plans have established normal retirement age below sixty-five. In a 1953–55 study, only one conventional plan provided for normal retirement for men earlier than sixty-five. In the new Bankers Trust Study, 10 of the conventional plans do so.[9]

One of the most pronounced trends has been a liberalizing of provisions for early retirement. The percentage of pattern plans that contain regular early-retirement provisions has increased from 70 per cent, as shown in the early Bankers Trust Study, to 88 per cent, as shown in the recent one. Conventional plans also have liberalized their early retirement provisions. About 96 per cent of conventional plans now contain a regular early-retirement provision, compared with 92 per cent in the 1953–55 study.

The increasing importance of disability-retirement provisions is demonstrated by the fact that 65 per cent of the plans in the new Bankers Trust Study permit retirement in case of disability, compared with 54 per cent in the 1953–55 study.

Vesting.—There has been a growing trend toward vesting of pension benefits with employees. This gives the employee the right to leave the service of his employer prior to normal retirement age without forfeiting his accrued pension. Vesting can be provided in two ways: either the employee gets a lump sum when he leaves the company, or he gets a partial pension at his normal retirement age from his former employer.

The Bankers Trust studies found that in 82 per cent of the pattern plans in the 1956–59 period there was some type of vesting, compared with only 41 per cent in 1953–55 and 33 per cent in 1950–52. As for conventional plans, 90 per cent had vesting provisions in 1956–59, as compared with 74 per cent in 1950–52.[10]

Pension benefits.—Benefit formulas in pattern plans in recent years have evidenced three distinctive trends: (1) a trend toward flat dollar benefits for each year of credited service and away from benefits related to compensation; (2) a trend toward providing benefits which are independent of Social Security offsets; and (3) a trend toward eliminating the maximum limitations on the period of credited service used in determining benefits, which has the effect of increasing benefits for longer-service employees.[11] The Bankers Trust Study showed that the median benefit of pattern plans is now

9. Bankers Trust Study, pp. 10–11.

10. *Ibid.*, pp. 17–18.

11. *Ibid.*, pp. 19–20.

$27 per year for each year of service, in comparison with a median benefit of $20 in the 1953–55 plans.

Benefit formulas in conventional plans have been revised to increase benefits. One reason has been that management, concerned with the inroads of inflation over the past few years, has liberalized benefits to make sure that employees already retired or about to be retired obtain sufficient benefits to compensate for the loss of value of the dollars brought about by inflation. Some of the trends in conventional plans have been to (1) revise pensions already accrued by relating them to present rates of compensation; (2) increase benefit rates; (3) eliminate or reduce Social Security offsets; (4) adopt alternate benefits formulas in the forms of minimum pensions; and (5) adopt variable income plans or include an automatic cost-of-living adjustment for pension benefits. Some of the companies that have adopted the so-called variable or equity annuities have been Aerojet-General, Boeing Airplane, Chemstrand, General Mills, Kidder, Peabody, Long Island Lighting Co., and Warner-Lambert.

These trends make clear the fact that pension costs are becoming more expensive. Probably the development that will represent the greatest cost to employers is the trend toward vesting. Adding full and immediate vesting to a normal pension plan could increase cost as much as 40 per cent. The mathematics are complicated, but the reason for these additional costs is apparent. If, normally, out of every 100 employees, only 20 stayed on until retirement age, the company would have to pay pensions to only those 20 employees. On the other hand, with vesting, most of the 100 employees would get some sort of cash or pension.[12]

II. Method of Funding

The costs of a typical pension plan have been high. There have been several ways for companies to meet them. One is the "pay-as-you-go" method of financing, with monthly pensions made just another payroll expense. This made sense for some companies, especially large ones with stable earnings; a company could earn a larger return on money invested in its own business than in a pension-fund portfolio. But for many companies such "pay-as-you-go" financing has many drawbacks. Costs tend to be small at first, then to accelerate upward rapidly. Moreover, if a company is hit by a business recession, it faces heavy pension outlays with little in the company treasury to meet them.

12. *Business Week Special Report*, p. 15.

Another early method, the so-called "book reserve method," has also lost favor. This method set up balance-sheet reserves for pensions by charges to surplus and earnings. Its main drawback is that no tax deduction is permitted on the funds transferred to reserves. A third method, terminal funding, which usually means paying a lump sum into the pension fund when the employee retires, has also been generally discarded because it did not offer enough flexibility.[13]

Most pension plans are now funded. Funding is based on the concept that the cost of a worker's services is actually greater than the amount of his current wages and that this extra amount should be set aside on an annual basis. The amount to be set aside is determined by such things as benefit levels, labor turnover, mortality rate, and interest on pension investment. Funding has become the more or less standard way of financing both pattern and conventional plans. Of the pattern plans (1956–59) studied by Bankers Trust, every plan was funded, while 6 per cent of those studied in 1953–55 were unfunded. Only 3 per cent of conventional plans studied were unfunded.

Funding a company pension plan can be accomplished in various ways: through insured plans, non-insured plans, or some version of the two. Non-insured funds usually consist of company contributions put in a trust fund and administered by a bank but sometimes by company officials or a joint labor-management group. The guaranty of employees' pensions depends on whether the company puts in enough money and whether actuarial assumptions are sound.

In the insured plans, the company takes out insurance policies on its prospective pensioners that will provide them with annuities at retirement. These policies come in various types, including individual annuity, group deferred annuity, group permanent life, group deposit administration. There are also the so-called combination plans, such as split-funding. In this, part of the plan is insured, the rest is put into a trust fund to supplement the insured benefits.

One of the interesting developments has been the sharp competition between the banks which administer most of the trusteed company plans and the insurance companies for pension-fund business. In the 1930's, the insurance companies had the bulk of the pension business. And even today the pension accounts held by insurance companies are impressive. At the end of 1959, there were 28,430 insured plans, covering 5.37 million workers. Life insurance reserves for pension plans at the end of 1959 totaled $17.5 billion, or 19 per cent of

13. *Ibid.*, pp. 9–10.

total life insurance company reserves.[14] But insurance companies have lost ground to the non-insured plans administered by banks. Today, non-insured plans have 62 per cent of total pension assets, while insured pension reserves total 38 per cent.

The Bankers Trust Study showed that the pension trusts were used by 79 per cent of the pattern plans studied, with insurance methods accounting for 15 per cent. Of all the conventional plans studied, 69 per cent had pension trusts, 19 per cent had insured plans, and 10 per cent had a combination pension and trust-insured plan.

The reason that insurance companies have lost ground in the competition for pension-fund business can be traced to several factors. For one thing, non-insured plans are more flexible in terms of contributions, and details can be changed more easily. Insurance companies also pay taxes on their earnings, while non-insured plans do not. At the same time, state laws closely regulate the investments that life insurance companies can make, while trusteed plans have much greater latitude—especially in the case of buying common stocks.

However, in the last two years, the life insurance companies have become increasingly competitive. They have developed, for example, the split-funding concept which has become very popular. They have also induced several states to ease their restrictions on investment, permitting the insurance companies to invest more heavily in common stocks. In addition, the Life Insurance Company Income Tax Act of 1959 has helped ease the tax on pension reserves. Some insurance companies also offer the selective method of credit interest, whereby they can guarantee to pension accounts interest rates that are higher than the normal guaranteed rates. Insurance companies have also improved their earnings on their reserves, so that they can more closely match the record of trusteed plans.[15] Table 1 shows the increase in returns on insurance company investments over the past several years.

Other trends.—Several other trends should be noted in connection with pension plans. One development is the so-called "portable pension," which permits workers to carry their pension rights from one employer to another. This is now being used in plans covering truck drivers in the Metropolitan New York area, Maritime officers on the East Coast and West Coast, and some Teamster Union plans.

14. *Life Insurance Fact Book*, p. 35.

15. *Business Week Special Report*, p. 14.

Such plans, for example, permit a teamster to move from one industry to another in which his pension rights are covered by a reciprocal contract and still continue to build up his pension rights. A case in point would be a teamster with 10 years of pension credits with a New York trucking firm moving to New Jersey to take a job with a warehousing firm. He would get pension benefits equal to the sum of those due from both employers.[16]

A few pension plans now call for the annuity-certain feature, which provides a guaranteed number of pension payments (24, 36, or 60). Another addition to pension plans is the lump-sum death benefit with or without deduction of pension payments already received. Other plans now have joint-and-survivor options. Still others provide a Social Security option. Under this arrangement, an em-

TABLE 1*

RETURNS ON INSURANCE INVESTMENTS

Year	Interest Rates before Federal Taxes (Per Cent)	Year	Interest Rates before Federal Taxes (Per Cent)	Year	Interest Rates before Federal Taxes (Per Cent)
1951.....	3.18	1954.....	3.46	1957.....	3.75
1952.....	3.28	1955.....	3.51	1958.....	3.85
1953.....	3.36	1956.....	3.63	1959.....	3.96

* Source: Institute of Life Insurance, 1960.

ployee retiring before age sixty-five is permitted to convert his level pension to a higher pension, payable until that age and a lower one thereafter, the difference between the amounts being approximately the amount that he will receive as a Social Security old age benefit.[17]

Legislation.—The need for legislation in the pension area was made clear by the Senate Subcommittee on Pension and Welfare Funds, which in its investigations a few years ago turned up dozens of cases of looting and mismanagement of pension funds—nearly all of the union-industry type. To prevent such situations in the future, the committee recommended the overhauling of outmoded federal and state statutes and the addition of new ones. To support the need for government regulation, the subcommittee argued that in many cases pension beneficiaries had no one else to turn to and

16. *Ibid.*, p. 15.

17. Statement by Robert Tilove, senior vice-president, Martin E. Segal and Co., pension consultants, June 15, 1959.

that the government itself had a major stake because of the tax-exempt status of pension funds.

Congress' first effort to regulate pension funds was the passage in 1958 of the Disclosure Bill, which required all pension funds to file annual reports of operations with the Secretary of Labor, who then makes them available for public inspection. The law, however, sets up no operating rules or actual standards for pension funds. Moreover, in the last two years the Labor Department has been very lax in getting funds to report. At the same time, it has done little to tabulate or summarize the vast quantity of valuable information it has received.

Indications from the 1958 session of Congress were that, while Congress felt that the federal government should provide only mild remedies to pension abuses, it was up to the states to furnish the real safeguards over pension operations. So far, however, only a handful of states have enacted legislation to reach such objectives. And most of the legislation passed is directed at union-employer funds, not the unilateral plans. There seems to be little promise of new remedial legislation this coming year.[18]

III. Investment of Private Pension Funds

Corporate stock.—One of the marked trends in private pension funds in the last ten years has been their changing investment patterns. Corporate pension funds were initially invested in government and corporate bonds. In 1951, for example, 31.6 per cent of total assets of non-insured private pension funds were in government securities and 45.4 per cent in corporate bonds. But in recent years the pension portfolio has shifted very heavily in the direction of common stocks, and percentage of government bonds has declined sharply. In 1959, government securities were 8.5 per cent of total pension assets, and common stocks (at book value) were 30.5 per cent.[19]

Several factors put the non-insured pension funds into equities. Twelve years ago, bankers who manage the bulk of trusteed plans were cautious about common stocks and had only 10 per cent of their funds in them. One factor that changed the bankers' attitude was the action of the Federal Reserve Retirement System in 1949, permitting its funds to make an initial commitment in stocks. Then, in 1950, New York changed its trust laws to allow trustees to invest

18. *Business Week Special Report*, pp. 16–17.

19. SEC Report, p. 3.

up to 35 per cent of the trust portfolio in common stocks; and amendments to other state trust laws opened the doors for personal trusts to invest in this way. This encouraged pension trustees to invest more heavily in stocks.

The 1953–56 stock boom, plus the current one, and the renewed fear of inflation encouraged many other funds to buy stocks. In 1958, the Bell System, which at the time had almost $3 billion pension assets, authorized the investment of up to 10 per cent of its pension funds in common stock—the first time it had permitted the purchase of any securities other than bonds. Several union funds, which had also been entirely committed to bonds until that time, followed Bell's example.[20]

The changes in the composition of pension-fund portfolios can be seen clearly in the figures for 1951 and 1959 shown in Table 2. The pattern shows a sharp increase in holdings of common stock, a sharp decrease in holdings in United States governments, and a gain in corporate bonds and mortgages. When the same figures are put in terms of market value as in Table 3, the gains of common stock show up even more.

Pension-fund holdings of common stock now total $12.3 billion at market and represent approximately 3 per cent of all common stock now outstanding. The market value of these holdings also represents $5 billion of capital gains. It is also interesting to note that, while 43.4 per cent of the current portfolio of pension funds (at market) is invested in common stocks, the amount of such buying is taking place at increasingly higher percentages. Table 4 shows this pattern of new purchases. Furthermore, as net purchasers of common (and preferred) stock, pension funds have been the largest buyer for the last eight years, buying more than life insurance companies, investment companies, and individuals (Table 5).

While these figures show that pension funds take up to as much as 37 per cent of the net additions to stock outstanding, some of the individual pension funds purchase much higher percentages. Sears Roebuck has almost three-quarters of its pension and profit-sharing fund's assets in common stock, and Bethlehem Steel Company's pension fund has over 66 per cent of its assets in common stock.[21]

Most of the common stocks held by pension funds tend to be of the "blue-chip" variety. This was revealed in the study made for the Senate Committee on Banking and Currency a few years ago.

20. *Business Week Special Report*, p. 18.

21. *Ibid.*, p. 15.

TABLE 2*

PERCENTAGE DISTRIBUTION OF TOTAL ASSETS, BY TYPE (BOOK VALUE)

Securities	1951	1955	1959
Common stock	11.8	20.8	30.5
U.S. government securities	31.6	17.8	8.5
Corporate bonds	45.4	50.8	50.6
Preferred stock	4.0	3.6	2.6
Mortgages	.....	1.0	2.3
Cash and deposits	4.2	2.4	1.6
Other assets	3.0	3.6	4.0
Total	100.0	100.0	100.0

* Source: Securities and Exchange Commission.

TABLE 3*

PERCENTAGE DISTRIBUTION OF TOTAL ASSETS (MARKET VALUE)

Securities	1955	1959	Securities	1955	1959
Common stock	30.2	43.4	Mortgages	0.9	2.0
U.S. government securities	15.7	7.1	Cash and deposits	2.2	1.4
Corporate bonds	44.6	40.3	Other assets	3.2	3.6
Preferred stock	3.3	2.1	Total	100.0	100.0

* Source: Securities and Exchange Commission.

TABLE 4*

PERCENTAGE OF NET RECEIPTS OF PENSION FUNDS INVESTED IN COMMON STOCK

	1951	1952	1953	1954	1955	1956	1957	1958	1959
Percentage	21.6	25.7	23.8	31.4	28.7	32.3	36.5	43.0	49.5

* Source: Securities and Exchange Commission.

TABLE 5*

NET PURCHASES OF COMMON AND PREFERRED STOCK BY PENSION FUNDS AS A PERCENTAGE OF TOTAL INSTITUTIONAL AND INDIVIDUAL BUYING

	1951	1952	1953	1954	1955	1956	1957	1958	1959
Percentage	11	16	21	27	23	25	29	32	37

* Source: Securities and Exchange Commission.

It showed that pension funds concentrated one-quarter of their total stock purchases on 25 of the most popular stocks on the New York Stock Exchange. In 1955 the New York State Banking Department's study of holdings of bank-trusteed funds showed the same preference.[22] The ten most popular holdings were all stock-market favorites. Discussions with managers of some of the largest pension plans indicate that pension funds still hold top-quality stocks in their portfolio, though there are sizable differences of opinion concerning the ones to hold in any given period.

Corporate bonds.—Corporate bonds have long been the mainstay of pension funds because of their stability and high yield. At the present time, corporate bonds represent 50.6 per cent of total pension assets at book value. Many of the funds buy corporate bonds through private placements. Another trend in the past few years has been increased buying of convertible debentures by pension funds.[23]

Government bonds.—These have become increasingly unpopular, and many pension funds have sold the bulk of these holdings. Low yields have been the major reason for this lack of interest by pension funds.

Mortgages.—Pension funds have become increasingly interested in mortages. One reason is the handsome return, which can range between 6 and 7 per cent, and the fact that they are long-term investments. In 1959 these mortgages amounted to 2.3 per cent of total pension assets at book value, a sizable increase over the less than 1 per cent figure they represented in 1951.

One of the reasons that pension funds have been slow in getting into mortgage and real estate investments is that many fund managers did not have experience in handling or evaluating mortgages and lacked the ability to service mortgages. Many of these problems have been overcome, and pension funds are finding mortgage investments increasingly popular. In fact, Henry Held, senior vice-president of the Bowery Savings Bank, feels that in the next decade, as life insurance companies and savings banks show declines in their own mortgage ratios, pension funds will become one of the largest sources of investment and mortage loans.[24]

Another step that will make it easier for pension funds to go into mortgages is the technique developed by Instlcorp, Inc., New York, a subsidiary of the investment company owned by New York

22. *Ibid.*, p. 14.

23. *Ibid.*, p. 18.

24. "AFL-CIO Aids In Fund Investments," *New York Herald Tribune,* August 16, 1960, p. 43.

State's mutual savings banks. Instlcorp creates a variety of serial notes, backed by specific packages of FHA and VA mortgages, and then makes them available for sale in pension funds.[25]

Some of the union pension funds particularly have moved heavily into the mortgage field. The International Ladies Garment Workers Union has put more than $100 million of its pension funds into VA and FHA loans. The International Brotherhood of Electrical Workers has invested over $50 million in such projects. And, only recently, George Meany, president of the AFL-CIO, announced that the executive council of the union planned to set up an investment advisory department to help channel union funds into mortgages. (One of the reasons for setting up the advisory group was to get union funds invested in FHA and VA mortgages and to discourage discount practices prevailing in these markets which tended to boost interest rates above the levels set on such mortgages. The union's announced desire is to keep interest rates down and thus permit more individuals, including union members, to be able to finance the purchase of homes.[26])

Other investments.—Leasebacks are becoming more and more attractive to pension funds because of their long-term nature, their 6–9 per cent yields, and because the fund usually ends up owning the property when the lease finally runs out. General Electric's pension fund has invested heavily in such leasebacks; so has the pension fund of the General Tire and Rubber Co.[27]

Commercial paper is a relatively new investment medium. The Sears Roebuck pension fund, for example, invested $58 million in top-grade commercial paper in 1957. It was stated that such investments provided a better yield than Treasury bills, as well as good liquidity, while the fund waited out some new long-term commitments. Other funds have similar investments.[28]

Some of the smaller pension funds, which do not have sufficient resources for adequate diversification of their own, have bought mutual funds. In September, 1958, 2,584 pension funds had invested $65 million in these funds. At the end of 1960, the amount of mutual funds owned by pension funds totaled $100 million.[29]

25. *Business Week Special Report*, pp. 11–12.

26. *Ibid.*, p. 11.

27. *Ibid.*, pp. 11–12.

28. Robert Tilove, *Pension Funds and Economic Freedom* (New York: Fund for the Republic, May 20, 1959).

29. "Pensions Buy Mutual Fund," *New York Times*, October 12, 1960, p. 31.

A few pension funds have gained control of companies through their investment policy. One is the Springfield (Mass.) newspapers, which own control of Atlas Tack Company and Exchange Buffet Company. Another is the Sears Roebuck and Company Savings and Profit-sharing Pension Fund, which owns 26 per cent of the outstanding stock and effective control of the big mail-order company.[30]

Another development is the investment by the Teamsters pension fund in Florida real estate, which might be considered speculative. The Teamsters own the 500-room Everglades Hotel in Miami and have helped finance the Honeymoon–Caladesi Island development near Dunedin, Florida, and hold directly other properties in Miami.[31]

The United Mine Workers pension fund has invested $70 million of its pension fund money in such enterprises as banks and coal mines. It has also invested in several companies owned by Cyrus Eaton, Cleveland industrialist. It advanced $26 million to Mr. Eaton to enable him to take over two large non-union coal producers—West Kentucky and Nashville Coal Companies. The UMW then unionized the mines, and since 1954 the two mines have paid $81 million in union wages and $14 million royalties into the union's pension and welfare funds.[32]

Another interesting trend in the area of pension-fund investments is the expressed desire by some unions to participate in the investment decisions of pension plans where the investment power is now in the hands of company management. Union leaders like Walter Reuther of the United Auto Workers and David McDonald of the United Steelworkers have taken the position that, since pensions are deferred wages, they belong to the workers and, as a result, the workers should be given some share in the direction and control of pension funds.[33]

Unions—mainly the autoworkers and steelworkers—have also advocated the idea that a percentage of pension-fund assets should be invested in "social-purpose" projects—low-rent housing, medical clinics, hospitals, and recreation centers in communities where workers live. This union demand got an airing two years ago when Walter Reuther complained that the Ford Motor Company pension fund had invested in a luxury housing development in New York City, while, at the same time, refusing to invest in a middle-income hous-

30. *Business Week Special Report*, p. 16.

31. "Teamsters Union Backs Florida Resort Project," *New York Times*, October 12, 1960, p. 15; "Union Fund Gets Hotel," *ibid.*, October 15, 1960, p. 17.

32. "UMW Defends Its Investments," *New York Times*, October 7, 1960, p. 9.

33. *Business Week Special Report*, p. 14.

ing project in Detroit. This same issue of investing pension funds in "social-purpose" projects was involved in the steel negotiations three years ago.

Most company pension-fund managers and executives are opposed to unions having any control over pension-fund investments or the investment in "social-purpose" projects. The attitude of management can best be summed up by J. D. Lockton, treasurer of General Electric, who feels that "investing pension funds in risky, unproductive, or financially unattractive projects would place those funds, and employee benefits, in jeopardy."[34]

IV. Summary

In the last fifteen years, private pension funds have grown in terms of total assets into one of the country's major financial institutions. And these funds are still in their growth stage.

The current trends in private pension plans point to a continued liberalization of plans by making eligibility easier, providing vesting, and increasing benefits at retirement. These increased benefits will obviously boost current pension costs well beyond their present level and increase the amount of money that employers—and employees—must contribute into pension funds or insured plans to make sure that benefits will be available when employees retire.

Perhaps the most striking change in recent years in the investment policies of pension funds has been their movement into equities to the point that they are now the biggest net purchasers of common stocks. In recent years, pension funds have at the same time decreased their holdings of government bonds and maintained fairly constant their holdings of corporate bonds. They have ventured into the mortgage area and are now experimenting with other types of investment.

There are a number of aspects of pension funds that are not clearly understood. But, despite the fact that the funds have grown enormously and become important forces in economy, little research on them and their consequences is actually being done. More work should obviously be undertaken.

34. *Ibid.*

THE SUPPLY OF LOANABLE FUNDS FROM NON-INSURED CORPORATE, STATE-, AND CITY-ADMINISTERED EMPLOYEE PENSION TRUSTS*

VICTOR L. ANDREWS
Massachusetts Institute of Technology

I. INTRODUCTION

NON-INSURED CORPORATE PENSION and deferred profit-sharing funds and state- and city-administered pension funds are large enough and growing swiftly enough to deserve analysis as major suppliers of funds.[1] Fund flows through other intermediaries have recently received close scrutiny, with beneficial results for our understanding of the sources of variation of supplies of funds to various segments of the capital markets.[2] Similarly, this paper traces fund flows through pension trusts from inflow to ultimate disposition as supplies of funds to the capital markets. One focus of interest is the recent history of these flows. However, the key point to be argued is that fund flows through pension trusts bear characteristics which posit stability of fund supplies to certain segments of the capital market. Discussion is organized around three points: (1) the pension-accumulation process and the structure of fund inflows and outflows, (2) some implications of the character of the saving process and of pension funds as an intermediary for stability of supplies of loanable funds, and (3) portfolio policy.

II. THE NATURE OF THE COMMITMENT TO PENSION SAVING

The core of the pension-saving process is the decision to assure non-discretionary retirement payments. Without this, of course, asset accumulation is haphazard, if it occurs at all. But, more particu-

* This paper benefited from the critical comments of Professors Eli Shapiro and Daniel Holland, of the School of Industrial Management of M.I.T. However, only the author is responsible in any way.

1. The author chooses to discuss state and city funds because several elements of dissimilarity are submerged in the aggregate of state and local funds. Together, state and city funds hold about 93 per cent of aggregate assets.

2. See Kenneth M. Wright, "Gross Flows of Funds through Life Insurance Companies"; J. Brooke Willis, "Gross Flows of Funds through Mutual Savings Banks"; and Charles M. Torrance, "Gross Flows of Funds through Savings and Loan Associations," all in the *Journal of Finance*, Vol. XV (May, 1960).

larly, it is precisely the determination to secure adequate benefit payments in accord with an actuarial estimate of need that gives rise to the characteristic pattern and pace of asset buildup in rough correspondence with the growth of liabilities produced by employee service. The magnitude of claims determines necessary assets and, indirectly, the contributions combined with earnings necessary to preserve equality between claims and assets. This is the important linkage of income-creating employment with the supply of loanable funds made available through pension trusts as saving out of current income.

Within this broad frame several characteristics affect the time pattern of a pension fund's growth and the composition of its fund flows. The nature of the benefit promise exerts great influence. Fixed-benefit plans guarantee a specified or determinable level of retirement payments, either flatly stated or fixed by formula.[3] Ultimate asset size and rate of growth of the trust fund are functions of the magnitude of benefits promised. Growth comes from contributions and fund earnings. In contrast, level-of-contribution plans fix contributions instead of benefits, and the level of benefits derives *de facto* from fund assets prorated to individual employees at retirement. Contributions are a direct function of employee working hours—for example, when stated as cents per man-hour or in a similar way. Asset accumulation derives from contributions plus earnings on investments.

Corporate profit-sharing funds derive from a saving commitment dissimilar to both fixed-benefit and level-of-contribution pension plans. Employer contributions are geared to profit performance and a stated formula for distribution of profit to employees, perhaps most often as a company policy and not as a matter of contract. Fund earnings also contribute to accumulation of assets. Benefit payments, as in a level-of-contribution plan, depend entirely on prorated assets available at the time of an employee's retirement. Thus profit-sharing funds are loose at both ends; neither contributions nor benefits is contractually stated or determinable by formula.

In either fixed-benefit or level-of-contribution plans, fund inflows may derive from employer contributions or employer and employee contributions. Most corporate plans are non-contributory, and the bulk of fund inflows, then, is employer contributions; but in state and city funds contributory plans are much more common, and fund inflows from employers and employees are more nearly equal.

3. Most plans are of this type.

Some flexibility in the rate of pension-fund growth exists in the different methods of funding past-service obligations. At the inception of a pension plan it is common for covered employees to be given some credit for past service. This creates an ultimate obligation, but immediate funding would place a severe drain upon the resources of the employer. Consequently, this obligation is met by alternative paths which give the employer some discretion in speed of funding. This builds in a certain variability to fund inflows.[4]

The pace of the growth of outflows is stable. Individual employees may exercise their claim against pension assets, or, put more accurately, against a retirement *plan* only under specified conditions of service and age, and, even when fully vested, claims cannot be drawn down until retirement. Consequently, claims are illiquid except in case of departure from service.[5]

The results of the nature of fund inflows and outflows is that net growth is sustained and relatively predictable. Outflows occur only under specified conditions predictable within rather narrow ranges, except in circumstances of unemployment, when forced withdrawals may occur. An important corollary of the growth process is that, so long as most employees initially covered remain below retirement age and/or if coverage is extended to younger employees rapidly enough, contributions on account of current service will exceed retirement-benefit payments. Current cash inflows exceed cash outflows for many years, possibly almost permanently, as a result.[6] For these two reasons, fund assets ordinarily need not be drawn down to meet liquidity demands.

In summary, the primary characteristic of pension accumulation of importance for this discussion is its quasi-contractual character. In fixed-benefit plans this derives from the attempt to match liabilities actuarially—the present value of future benefit payments—

4. In an earlier study the author guessed that inflows on account of past-service costs in corporate funds fell in the range of 10–15 per cent of gross inflows ("Investment Practices of Corporate Pension Funds," unpublished doctoral dissertation completed in the Department of Economics at M.I.T., June, 1958, p. 160).

5. Fundamental legal ambiguity surrounds the nature of employee claims and the nature of employer commitments in pension plans. The legal system has yet to hammer out case precedents establishing firmly the validity of employee claims, and statutory enactments are somewhat vague. In financial terms alone, however, this is not serious for the argument we are developing here except at the extreme when discontinuance interrupts fund flows. Largely, the structure of fund flows and the timing of exercise of claims would be unaffected by better legal definition which is highly desirable on other grounds (see Paul P. Harbrecht, S.J., *Pension Funds and Economic Power* [New York: Twentieth Century Fund, Inc., 1959], chap. 6).

6. For a strong dissent see Warters and Rae, "The Risks in Equity Investment for Pension Funds," *Transactions of the Society of Actuaries*, Vol. XI (March, 1960).

with assets on hand plus the present value of future contributions. Liabilities grow correspondingly as employees accumulate service credits. Fund inflows are thus linked with payrolls. Level-of-contribution plans contractually tie specified inflows with service directly. Despite the existence of several elements of variability in fund inflows, the saving process is largely automatic.

III. The Structure of Fund Flows through Corporate, State-, and City-administered Funds

The record of fund flows through pension trusts reflects both the quasi-contractual character of pension saving and the composition of the funds' financing. Tables 1–3 contain breakdowns of fund

TABLE 1*

FLOW OF FUNDS THROUGH CORPORATE PENSION AND DEFERRED PROFIT-SHARING FUNDS, 1951–59
(Millions of Dollars)

Year	Inflows						Outflows			Net Inflow of Funds
	Contributions		Investment Income	Capital Gains	Other Income	Total Gross Inflow†	Benefit Payments	Expenses	Total Outflow†	
	Employer	Employee								
1959	2,629	354	934	124	25	4,066	858	28	886	3,180
1958	2,275	331	800	67	33	3,506	706	31	738	2,768
1957	2,303	316	677	11	15	3,322	628	12	640	2,682
1956	2,053	267	558	49	19	2,945	544	13	557	2,388
1955	1,803	222	463	84	12	2,583	447	14	462	2,121
1954	1,648	191	409	‡	‡	2,248	357	8	365	1,883
1953	1,681	176	313	‡	‡	2,170	314	8	322	1,848
1952	1,392	153	247	‡	‡	1,792	263	7	270	1,522
1951	1,257	129	189	‡	‡	1,575	220	5	225	1,350
	As Per Cent of Total Gross Inflows									
1959	64.65	8.10	22.97	3.05	0.61	100.0	21.10	0.69	21.79	78.20
1958	64.88	9.44	22.82	1.91	.94	100.0	20.14	.88	21.05	78.94
1957	69.32	9.51	20.38	0.33	.45	100.0	18.90	.36	19.26	80.73
1956	69.72	9.07	18.95	1.66	.65	100.0	18.47	.44	18.92	81.10
1955	69.79	8.59	17.92	3.25	0.46	100.0	17.30	.31	14.13	72.89
1954	73.30	8.50	18.19	‡	‡	100.0	15.88	.36	16.24	83.76
1953	77.46	8.11	14.42	‡	‡	100.0	14.47	.37	14.84	85.16
1952	77.67	8.54	13.78	‡	‡	100.0	14.68	.39	15.07	84.93
1951	79.81	8.19	12.00	‡	‡	100.0	13.97	0.32	14.29	85.71

* Source: Securities and Exchange Commission, *Statistical Series Releases*, Nos. 1474 and 1680.
† Detail may not add to totals because of rounding.
‡ Not available separately.

flows through corporate, state-administered, and city-administered employee retirement funds, respectively, for the years 1951–59. In each table inflows and outflows are presented in dollar sums and as percentages of total gross inflows.

In the nine years recorded here the annual net inflow of funds—defined as gross inflows[7] minus gross outflows—to corporate trusts rose from $1.35 billion in 1951 to about $3.2 billion in 1959. This is a compound growth rate of about 10 per cent. For state-admin-

TABLE 2*

FLOW OF FUNDS THROUGH STATE-ADMINISTERED PUBLIC EMPLOYEE RETIREMENT SYSTEMS, 1951–59
(Millions of Dollars)

YEAR	INFLOWS						OUTFLOWS				NET INFLOW OF FUNDS
	Contributions				Investment Income	Total† Gross Inflow	Benefit Payments	Withdrawals‡	Other	Total† Outflow	
	Employee		Government								
	State	Local	State	Local							
1959...	251	501	507	300	324	1,883	479	147	21	647	1,236
1958...	245	467	531	253	259	1,755	419	168	16	603	1,152
1957...	208	400	441	231	224	1,504	357	154	11	522	782
1956...	317	225	397	185	192	1,316	291	145	10	446	870
1955...	296	197	335	177	166	1,172	256	118	9	383	789
1954...	269	180	352	166	142	1,109	226	129	9	364	745
1953...	240	159	282	116	120	917	186	105	11	302	615
1952...	224	127	263	123	105	842	160	87	9	256	586
1951...	217	94	211	118	84	724	139	61	8	208	516
	As Per Cent of Total Gross Inflows										
1959...	13.33	26.61	26.93	15.93	17.21	100.0	25.44	7.81	1.12	39.67	65.64
1958...	13.96	26.61	30.26	14.42	14.76	100.0	23.87	9.57	0.91	34.36	65.64
1957...	13.83	26.60	29.32	15.36	14.89	100.0	23.74	11.17	1.06	40.09	65.29
1956...	24.09	17.10	30.17	14.06	14.59	100.0	22.11	11.01	0.76	33.89	66.11
1955...	25.25	16.81	28.58	15.10	14.16	100.0	21.84	10.07	0.77	32.68	67.32
1954...	24.26	16.23	31.74	14.97	12.80	100.0	20.38	11.63	0.81	32.82	67.18
1953...	26.17	17.34	30.75	12.65	13.09	100.0	20.28	11.45	1.20	32.93	67.07
1952...	26.60	15.08	31.23	14.61	12.47	100.0	19.00	10.33	1.07	30.40	69.59
1951...	29.97	12.98	29.14	16.30	11.60	100.0	19.20	8.43	1.10	28.73	71.27

* Source: U.S. Bureau of the Census, *Compendium of State Government Finances*, published annually. Data refer to fiscal years.

† Detail may not add to totals because of rounding.

‡ Unsegregable withdrawal data are included with benefit payments.

7. Conventionally, this notion includes inflows from amortization, maturing of debt holdings, etc., but these data are not available for pension funds.

istered funds, net inflow rose from a little over $0.5 billion in 1951 to over $1.2 billion in 1959, or at a rate of increase of approximately 11¼ per cent. The growth rate of city-administered funds was about 10.5 per cent, carrying annual net inflows from $0.18 billion in 1951 to $0.44 billion in 1959.[8]

Net inflows to the public and private funds are not so near to equality as gross inflows because outflows are proportionately larger in the former type. In 1959, gross inflows to the corporate pension and profit-sharing funds were $4.1 billion, compared with a com-

TABLE 3*

FLOW OF FUNDS THROUGH CITY-ADMINISTERED† PUBLIC EMPLOYEE RETIREMENT SYSTEMS, 1951–59
(Millions of Dollars)

YEAR	INFLOWS				OUTFLOWS				NET INFLOW OF FUNDS
	Contributions		Investment Income	Total§ Gross Inflow	Benefit Payments‡	Withdrawals‖	Other	Total§ Outflow	
	Employee	City‡							
1959	236	483	136	854	368	46	5	418	436
1958	223	445	117	785	323	47	3	373	412
1957	210	419	102	731	302	42	3	347	384
1956	194	344	91	629	280	33	3	316	313
1955	180	366	79	625	258	25	2	285	340
1954	168	345	71	584	239	26	2	267	317
1953	153	296	62	511	218	27	2	247	264
1952	147	251	56	454	203	26	2	231	223
1951	131	214	47	392	183	23	2	208	184
	As Per Cent of Total Gross Inflows								
1959	27.65	56.60	15.93	100.0	43.10	5.38	0.59	49.07	51.10
1958	28.41	56.69	14.90	100.0	41.15	5.99	.38	47.52	52.48
1957	28.73	57.32	13.95	100.0	41.31	5.75	.41	47.47	52.53
1956	30.84	54.69	14.47	100.0	44.51	5.25	.48	50.24	49.76
1955	28.00	58.56	12.64	100.0	41.28	4.00	.32	45.60	54.40
1954	28.77	59.07	12.16	100.0	40.92	4.45	.34	45.72	54.28
1953	29.94	57.92	12.13	100.0	42.66	5.28	.39	48.34	51.66
1952	32.38	55.29	12.33	100.0	44.71	5.72	.44	50.88	49.12
1951	33.42	54.59	11.99	100.0	46.68	5.87	0.51	53.06	46.94

* Source: U.S. Bureau of the Census, *Compendium of City Government Finances*, published annually with slightly varying titles. Data refer to fiscal years.

† Coverage varies somewhat from year to year in the *Compendium of City Government Finances*.

‡ Excludes city contributions to retirement systems of cities of less than 25,000.

‖ Includes an unsegregable amount of withdrawals for some systems.

§ Detail may not add to totals because of rounding.

8. All fund-flow statistics for state and city funds refer to fiscal years.

bined total of roughly $2.7 billion for the public funds, but net growth was $3.2 billion versus $1.6 billion, respectively. In 1959, total outflows of the corporate funds were slightly under 22 per cent of total gross inflows, but the corresponding figure was nearly 40 per cent for state-administered and about 47.5 per cent for city-administered funds. Benefits payments and withdrawals of the corporate funds were slightly over 20 per cent of total gross inflows annually, in comparison with benefit payments alone of more than 25 per cent of total gross flows annually in state funds and over 41 per cent for the city-administered funds. This disparity in the proportion of outflows is traceable to greater maturity of the public funds. The most surprising result to emerge from analysis of the three tables is that benefit payments in city-administered funds have been *falling* in proportion to total gross inflows over the last nine years rather than rising, as is the case with the other two major types of funds. Benefit payments have risen absolutely, but inflows have risen more sharply, probably because of liberalization of these plans.

Employer contributions to the corporate funds constituted somewhat less than two-thirds of total gross inflows in 1959. This figure has fallen from nearly four-fifths in 1951. Employee contributions, reflecting the small number of contributory corporate plans, comprise less than 9 per cent of total gross inflows and have held steady around that figure. Government and employee contributions combined bulked larger in the gross inflows to state-administered funds than did the corresponding inflows to corporate funds, but the employer-employee breakdown has been nearer equality, reflecting the commonness of contributory plans. In 1959, employee contributions constituted about 40 per cent of total gross inflows, as compared with nearly 43 per cent for government contributions. The combined proportion of employee and city government contributions to city-administered funds was over 84 per cent in 1951; the division between employer and employee contributions was closer to the corporate structure than the state-administered funds, as city governments contributed nearly 57 per cent of gross inflows and 28 per cent was attributable to employees.

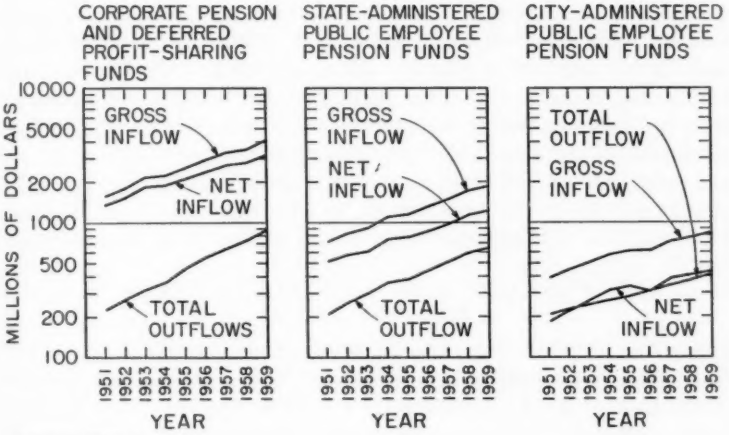
Investment income has expanded in proportion to total gross inflows for all three types of funds. In 1951, investment income, including capital gains, constituted 12 per cent of total gross inflows to corporate pension and profit-sharing funds. This figure has crept upward year by year to nearly 23 per cent for investment income alone in 1959 and 3 per cent for capital gains, or over 26 per cent

combined. The investment income of state-administered funds has risen less sharply from 11.6 per cent in 1951 to 17.2 per cent in 1959, but this is, nevertheless, a strong growth. Only in the case of city-administered funds has the increase been mild, as investment income rose from about 12 per cent of total gross inflows in 1951 to nearly 16 per cent in 1959.

For the public funds, employee withdrawals are stated separately in Tables 2 and 3.[9] Employee contributions are subject to withdrawal upon cessation of employment, and hence normal employee

CHART 1

GROSS FUND INFLOWS, TOTAL OUTFLOWS, AND NET INFLOWS FOR CORPORATE, STATE-ADMINISTERED, AND CITY-ADMINISTERED PENSION FUNDS



* Source: Table 1.

turnover would result in outflow on this account. Since the public funds are often contributory, a material level of withdrawals would be expected to exist under normal circumstances. In state-administered funds, withdrawals held steady at about 10–11 per cent of gross inflows between 1952 and 1957. In the last two fiscal years the percentage has declined rather sharply to 7.8 per cent in 1959. Withdrawals in city-administered funds have ranged somewhat above and below 5 per cent.

Gross inflows, outflows, and net inflows are plotted on a semi-logarithmic scale for the years 1951–59 in Chart 1. The first panel, with corporate pension and deferred profit-sharing fund flows, shows

9. Not available separately for the corporate funds.

a visible difference between the slope of gross inflows and total outflows. Outflows are rising faster than inflows, but the absolute difference between them is sufficiently large that the period required for convergence, barring any change, would be long. In the case of state-administered and city-administered funds the slopes of outflows and inflows are more nearly equal, but the absolute gap between them is much smaller.

Flows through corporate funds exhibit cyclical sensitivity. There are changes of slope of the gross inflow line between 1953 and 1954 and again between 1957 and 1958. In part, these interruptions are attributable to slow-downs of inflows in established plans but also to reduced formation of new plans. During these years, the slope of the outflow line remains substantially unchanged. The result is that the slope of the net inflow line showed the same change as did gross inflows.[10] The same observations do not apply to state-administered and city-administered funds. Although there are year-to-year changes of slope in the gross inflows to these two types of funds, they are not discernibly connected with the business cycle. Slopes of the total outflow lines for state-administered funds changed somewhat on two separate occasions, but again the change is not visibly related to the business cycle. The rate of growth of gross total outflows for city-administered funds has been quite smooth.

IV. Implications for Stability of Supplies of Loanable Funds

We may conclude that the tight linkage of pension-fund inflows with employment means that funds supplied as saving from current gross income will be subject to little instability. Only in the corporate funds will cyclical interruptions systematically give rise to variation. State and city budgets and employment are not directly affected by relatively mild business fluctuations of the post–World War II variety, and governmental authorities have little use for the latitude in past-service cost funding.[11] The gradual rise of invest-

10. Figures in these graphs are yearly totals and obscure the influence of cyclical forces shown in shorter-period data. Quarterly net savings through non-insured corporate funds have been estimated by the Section of Economic Research of the Securities and Exchange Commission. These data show cyclical interruptions of growth quite clearly; seasonal peaks are lower and troughs deeper in recession years than the course of previous growth suggests that they would have been.

11. Under tax-revenue pressure much more severe than any test provided by post-World War II fluctuations, inflows to the public employee funds might sag. This susceptibility may be reinforced somewhat by the consideration, at least arguable, that full funding is less pressing in the case of governments capable of backing retirement promises by the taxing power than in the case of private employers. Nevertheless, in the author's opinion, large-scale variation in fund inflows to the public employee funds is a remote contingency.

ment income in proportion to total gross inflows promises to add stability for both public and private funds.

In addition to saving out of current income, the traditional Robertsonian taxonomy of loanable funds includes components manufactured by (1) net money creation and/or (2) acceleration of income velocity (dishoarding). Claims on pension funds may or may not be substitutes for money balances in household assets, but there certainly is little or no short-term cyclical relation between the two. Thus monetary creation and near-monies are not an issue. However, there *is* a material question as to whether pension trusts can supply loanable funds in periods of heavy demand in the primary security markets by activating idle balances and raising income velocity.[12] Different persons have argued that intermediaries might raise velocity in two different ways: (1) by receiving destablizing shifts of demand deposits as they compete for fund inflows and (2) by mobilizing idle balances through procyclical operations in government securities.

Although pension funds are rightly classed as a financial intermediary, they are not outlets for voluntary liquid savings and are unlike deposit-type intermediaries to which the first argument applies. The acquisition of claims on pension funds is not a process within the discretion of the public, and managers of the funds do not compete to acquire deposits. Thus a short-term rise in income velocity resulting from deposit shifts to claims on pension funds is not possible.[13]

Another point connected with the non-deposit character of pension funds deserves mention in this connection. One author has pointed out that financial intermediaries participate in the process of credit expansion in the sense that bank-financed increases in expenditures which result in rises of the level of money income and saving lead to increased fund flows through intermediaries.[14] Because of their rather inflexible tie with employment, inflows to pension funds are linked to the credit-creation process in this sense

12. Discussion here leaves aside transactions velocity. The effect of pension funds on transactions velocity is a moot question. The direct flow of payments into pension funds circumvents some transactions which would take place if financial flows followed other routes, and this lowers transactions velocity. But operations in the secondary stock market raise deposit turnover. The author would guess that the latter effect preponderates.

13. Though short-term shifts between demand liabilities of commercial banks and pension funds may be ruled out, the possibility remains that there is some long-term substitutability between employee claims on pension funds and other asset accumulations, including the money stock. At best, though, we can only be uncertain.

14. Warren L. Smith, "Financial Intermediaries and Monetary Controls," *Quarterly Journal of Economics*, LXXIII (November, 1959), 536–37.

only as output and money income are affected. Increases in bank credit cannot wind up as the growth of household claims on pension funds in the same fashion as, say, they might end up as shares in a savings and loan association. Simple changes of household-asset structures resulting from the creation of money cannot directly affect fund inflows to pension trusts. Unless real output or money income from employment is raised by bank-financed expenditures, pension trusts will receive no added inflows whereas other intermediaries can gain from liquid-asset accumulation of the household sector. In short, pension trusts gain inflows only as value is added in production and cannot gain inflows as households trade money for other assets.

We cannot be unequivocal about the second possible source of velocity increase. State and city pension funds possess a large inventory of government securities which could be exchanged for the idle balances of dishoarders, but it is dubious whether, for the present anyway, their level of responsiveness to the motivation of yield differentials is sufficient. On the other hand, corporate funds have motivation but small government holdings. At one time, corporate pension and profit-sharing funds demonstrated responsiveness to the relative attractiveness of earning outlets and raised liquidity by resort to the sale of government securities. In one relatively brief period in 1956–57 they liquidated $0.5 billion of non-marketable governments, and immediately reinvested in the more profitable corporate bond market of that period.[15] On a much reduced scale, liquidation continued in 1958. (Incidentally, this virtually removed the sure liquidity of non-marketable governments from corporate funds.) Apart from motivation, though, the question of capacity remains. Holdings of governments in corporate funds are low but not irreducible. At the end of 1959 the absolute sum of a little over $2.1 billion held was about 8.5 per cent of assets.

Transactions balances approximate the bedrock of liquid-asset holdings not susceptible to the attraction of yield differentials and therefore not susceptible to portfolio switches which might activate idle balances and raise velocity. If we subtract transactions requirements from total liquid assets, then the remainder is a measure of that portion of holdings which *do* have this potency. Thus, to estimate the size of these holdings in the corporate funds, we first estimate transactions balances. It appears that cash balances alone do not meet transactions requirements of the corporate funds. The

15. See my article, "Pension Funds in the Security Markets," *Harvard Business Review*, XXXVII (November–December, 1959), 93–94.

ratio of cash to yearly net outflows has declined steadily for this group since 1951. Unless they have succeeded in continuously economizing on transactions liquidity, these funds have placed reliance for transactions balances on cash plus another (other) asset(s). A calculation of the ratio of cash *plus Treasury bills* to yearly net outflows shows a rough stability of the ratio at 0.95 since 1955. This suggests that these two assets have been maintained to meet transactions demand. Credence is lent to this inference by the observation that 1955 was the first year in the 1951–59 span when bill rates rose sharply and gave promise of remaining high.

The implication is, then, that, of the total of $2.1 billion of governments held by corporate funds at the end of 1959, most or all of about $400 million of bills were neutralized as transactions balances, leaving $1.7 billion as a potential instrument of velocity acceleration.

State and city government–administered pension plans hold $5.2 billion of government securities, mostly long-term. Lack of data prevents a try at estimation of transactions balances as above, but minimal liquidity needs of these funds are suggested by a sample of 14 state retirement funds in 1958 which had 4.3 per cent of total holdings of governments with maturities of less than 5 years and less than 1 per cent in bills and certificates.[16] The long-term governments could be sold to would-be dishoarders in periods of boom and widening yield differentials. There has, however, been no evidence of an inclination to do this in the past, and, unless the investment managers have a quick about-face in attitude, it is unlikely that as a body they will undertake this. They usually have sufficient difficulty getting rid of new inflows.

Presumably, either or both corporate and state and city funds would resort for liquidity to secondary markets other than the government securities market and thereby raise income velocity. The corporate funds, in particular, could always raise some cash from sale of common-stock holdings in a market which is highly liquid. Immediately the question arises whether idle balances would be activated through this market or not, and we cannot answer with assurance.[17] In recent years the outright sales of common stock

16. Joseph L. Bower, "Investment in United States Government Securities by State Governments," *National Tax Journal*, XIII (June, 1960), 132.

17. In turn, this raises the question of why the use by intermediaries of secondary markets for liquidity other than that for United States government securities does not seem to excite advocates of extended credit controls. In large measure, reliance on governments for portfolio shifting resulted from a desire to dispose of distended holdings from World War II. As "normal" portfolio proportions have been restored in recent years, intermediaries have begun sale of other fixed-value assets to adjust port-

by pension funds have surely exceeded any outright sales of governments;[18] yet this excited no controversy unless conjecture about effects on the secondary stock market comes under this head.

With respect to loanable funds explicitly, it seems, in sum, that corporate pension funds have little ability and state and city funds have insufficient responsiveness to add cyclically to supplies through effects on income velocity.

If we may expect little destabilization of money flows into pension trusts, what about withdrawals? The possibilities of the funds being subjected to short-term liquidity pressure are few and *relatively* slight. Since claims on a pension fund's assets exist only under specified conditions, the proportion of possible demand withdrawals is slight. Employees can lay claim to benefit payments as retired persons only under conditions which are actuarially predictable. During conditions of full employment, virtually no unanticipated withdrawals could be made. Some latent instability may exist in the form of payments or withdrawals spurred by the onset of unemployment. Short-term liabilities exist in the form of accumulated employee contributions and, to a minor extent, as vested employer contributions. Should large-scale and prolonged unemployment lead to employees severing their connections with the employer, these claims would be exercised. Probably these liabilities are not large at the moment, but in the nature of the case they will accumulate absolutely and in proportion to total assets with the passage of time. However, we may recall that withdrawals in state- and city-administered funds were not proportionately large and have tended, if anything, to decline proportionately to inflows.

Elsewhere we have pointed out that withdrawals by the fund's administrators to meet benefit payments are a minimal, but real, risk. Under some circumstances, invasions of the fund's principal could be necessary, but it takes drastic assumptions to produce results of this sort on even a moderate scale.[19]

The importance of these observations stands out in relief against the backdrop of recent contrasting experience of other major suppliers to the capital markets. Analysis of gross fund flows through life insurance companies, mutual savings banks, and savings and

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folios. In 1957 and 1958, for example, outright sales of corporate, municipal, and other long-term securities by life insurance companies exceeded their outright sales of long-term governments.

18. U.S. Securities and Exchange Commission, *Statistical Series Release*, No. 1680 (May 31, 1960), p. 2.

19. Warters and Rae, *op. cit.*

loan associations has revealed interest-rate sensitivity of net inflows in all three types of institutions. The rise of interest rates in the economy resulted in a reduction of net inflows to life insurance companies on contracts involving interest-rate assumptions.[20] The sensitivity of fund inflows to the deposit-type institutions has been detailed greatly in recent years as savings banks, savings and loan associations, and commercial banks have struggled for the growth of their time obligations.[21] Compared with the turbulence in net fund flows through the deposit institutions, inflows to pension funds have been models of stability.[22]

Although the analysis thus far argues that fund flows emanating from pension trusts will be significantly more stable than those from other intermediaries, it is difficult, if not impossible, to read implications for the stability or level of saving in total or the supply of funds to markets other than those in which pension funds invest. The question of to what extent pension saving substitutes for other saving out of current income is unanswered and, perhaps, unanswerable, but it is around precisely this issue that these matters turn. If pension saving substitutes for other forms, total saving from current income will not be changed, but little substitutability implies that pension saving results in a net increment.[23]

20. Wright, *op. cit.*, pp. 147–51.

21. Willis and Torrance, *op. cit.*

22. An important qualification must be appended regarding the role of the earnings rate in the long-run viability of pension funds in the competition between savings media. One of the critical actuarial assumptions in a pension plan is the earnings rate. In a fixed-benefit plan, earnings directly affect the level of contributions needed. Relatively slight increases will reduce in great proportion the contributions needed to finance a given level of benefits. Conversely, if contributions are held constant, increased earnings will raise benefit levels. In a level-of-contributions plan, earnings raise ultimate benefit levels. Thus, in the very long term, the pension fund must return a rate of earnings competitive with other savings media if it is to survive. This consideration has no consequence for shorter-term fluctuations, however, and there is no reason to suppose that, in the long term, earnings on these funds will not be at least competitive with alternative media.

In another way pensions are well suited to long-term competition with other savings media. The freedom of pension portfolios, especially the corporate variety but to a certain extent the public funds also, to adjust portfolio policy to the threat of price-level fluctuations is an advantage not shared by most competitors. The struggle of life insurance companies to obtain the latitude, through segregated asset funding or the operation of trust subsidiaries, to invest pension reserves in common stock bears witness to the need for defensive measures against inflation.

23. Discussions are numerous elsewhere and as yet are inconclusive. See George Garvy, "The Effect of Private Pension Plans on Personal Saving," *Review of Economics and Statistics*, Vol. XXXII (August, 1950); Challis Hall, "Retirement Contributions: The Spending Stream, and Growth," *Federal Tax Policy for Economic Growth and Stability* (U.S. Joint Economic Committee [84th Cong., 1st sess.]), Vol. XXXVII (July–August, 1959). A pension project under way at the National Bureau of Economic Research is attempting to test household saving response to pension accumulations.

Even if pension saving from current gross income substitutes for other forms with an unchanged average propensity to save, it is not difficult to envisage a resultant redistribution of the flow of funds to the capital markets. If claims on pension funds take the place of claims on other intermediaries in household assets, the securities markets served by the losing intermediaries will suffer a net reduction in fund supplies, and the markets sought by pension funds will gain. Overlap in portfolio policies would reduce the effects of a transfer.

Of the two poles of possible effects, the one postulating substitutability of pension saving for other forms is, to the author, the most interesting. It seems sure that pension saving will be at the expense of other forms of saving for the most part. In other words, pension saving will be a net addition to aggregate saving only in part, if at all, and other forms of saving will, perforce, be reduced. The opposite assumption implies a great change in average propensity to save, whose long-term stability, on the contrary, has been a commonplace observation. Also, since acquisition of claims on other intermediaries constitutes a large part of the saving of lower-income groups, which also are the overwhelming bulk of the covered workers of pension plans, it is likely that pension accumulations are competitive with other claims.[24] Thus the question of net transfers of funds looms as a practical one.[25]

Assuming that pension saving from current income is mostly, or all, a net increment to saving—an unlikely outcome—the result would be less, or possibly no, displacement of fund flows and a reduction in the general level of interest rates at a given level of capital formation. Alternatively, a higher level of capital formation could

24. The ambiguities about the strength of claims on pension asset accumulations augur against this; but, as the proportion of vested assets rises, the similarities between pension claims and claims on other intermediaries grow stronger.

25. The ultimate result of a powerful net transfer of fund flows between segments of the capital market is nearly imponderable in detail. In the author's view it is indisputable that in the long term—perhaps very long—yields and yield differentials between the various segments of the capital markets and portfolio policies of institutions would adjust sufficiently to smooth the flow of funds. It is equally indisputable that the difficulties of transition would be nettlesome, if not outright painful, perhaps protracted, and large scale. An instructive case is the post–World War II history of the interest rate on state and local government bond issues. A combination of tax privileges granted intermediaries and institutionalization of personal saving channeled funds away from the market for state and local government bonds after World War II. Although the increase in the volume of debt outstanding kept pace only proportionately with that of corporate bonds, the yearly average of yields on high-grade municipals rose by 1959 to 2.4 times the 1954 level, as compared with a rise to 1.7 times the immediate postwar level on corporates of comparable grade (see Roland Robinson, "Factors Accounting for the Sharply Increased Cost of State and Local Government Borrowing," *Journal of Finance*, XII [May, 1957]).

be supported at the same level of interest rates.[26] The first empirical research aim at testing the effect of pension coverage on savings propensities is under way at the National Bureau of Economic Research, and, interestingly enough, its preliminary findings indicate that net saving is augmented rather than being unaffected or nearly unaffected, as is assumed here. A set of questionnaires on household saving response shows that participants in pension plans not only do not reduce saving in other forms but seem to save *more* in other forms than non-participants in pension coverage.[27]

These comments have referred to long-term levels of saving. The cyclical effects of pension saving from current income on other forms are wholly unknown. Much would depend directly on the response of the spending streams of the parties to pension trusts, including the federal government. The response of employers, corporate and governmental, is germaine, of course, because pension contributions are imbedded in their cost structures. The federal government is involved because its cyclical fiscal-policy response to fluctuating revenues would largely determine the outcome of the response of total saving. The cyclical response of consumer saving through other intermediaries and direct investment in the securities markets is not known. Despite cyclical stabilization of fund flows to the segments of the capital markets supplied by pension trusts, then, there is not a presumption that cyclical adjustment elsewhere is either accentuated or ameliorated.

V. Contrasts in Investment Policies, 1951–59

The recent course of investment policies implies that, for the foreseeable future, the markets for corporate securities will be the chief beneficiaries of loanable funds generated by pension saving. Moreover, shifting environments of the public funds presage extension of this circumstance. The investment income of pension trusts is free of federal income tax. Save for anachronisms[28] and special cases to be pointed out, portfolios should include no tax-exempt securities; the superior yields of taxable investments should be decisively attractive. Minimal liquidity needs eliminate large portfolios of federal government securities. So far, mortgages and real estate have not been conspicuous pension investments. Thus corporate bonds remain as the primary fixed-value investment. Cor-

26. Questions of achieving income equilibrium are waived here.

27. National Bureau of Economic Research, *Fortieth Annual Report*, May, 1960, pp. 46–47.

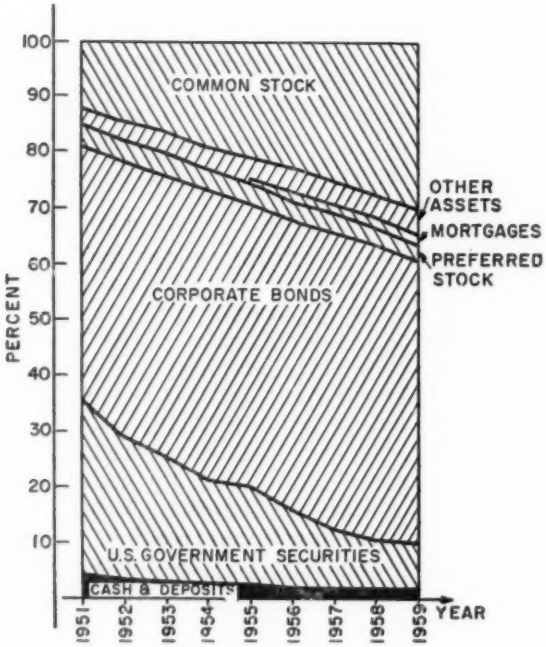
28. Large ones in some state and city funds.

porate stock is the chief investment available as a price-level hedge and a tap on secular economic expansion. Thus the corporate securities markets will be the recipients of the bulk of pension-fund flows.

Current rates of investment.—Charts 2 and 3 are illustrations of the percentage breakdowns of portfolios of the corporate and public funds. The shift of corporate funds to common stock and their deemphasis of federal government securities is plainly evident. In 1959 the corporate funds committed an amount equal to more than 53 per cent of their net inflow of funds to the acquisition of common stock. Net purchases of corporate bonds equaled more than three-tenths of net inflows. Mortgage purchases took about 5 per cent. The remainder was scattered over acquisition of governments and other miscellaneous assets.

CHART 2

DISTRIBUTION OF ASSETS FOR NON-INSURED CORPORATE AND DEFERRED PROFIT-SHARING FUNDS

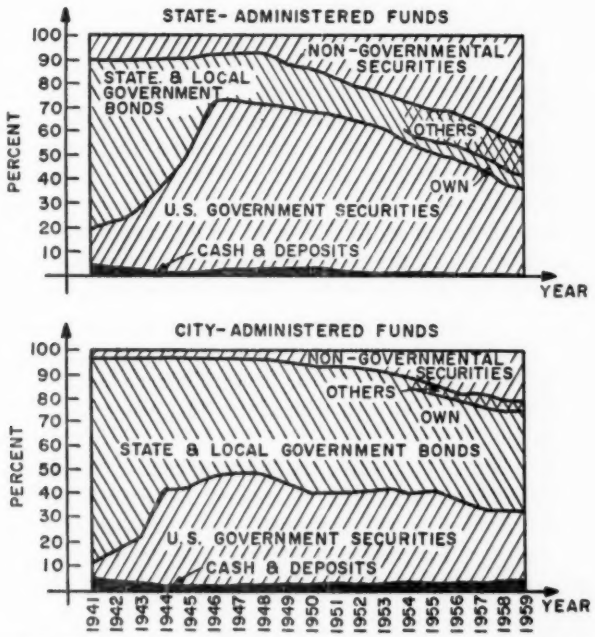


* Source: Statistical Series Releases of the Securities and Exchange Commission.

Investment policies of the public funds have differed significantly from those of the corporate funds in the past and, even now, lag in several respects. Government bonds, both federal and municipal, have been dominant holdings. Only since the late 1940's have non-government securities, mostly corporate bonds, assumed importance. Common stock has been only a potential investment. A gradual and progressive change in policies has raised the fraction of current net-asset increase flowing to non-government obligations. In state-administered funds, about three-fifths of net-asset growth was composed of corporate bonds in 1958; in 1959 the fraction was nearer two-fifths. The drop was occasioned by investment in mortgages to an extent equal to about one-fourth of net inflows in the latter year. The remainder of investments has been made mostly in state and

CHART 3

DISTRIBUTION OF ASSETS FOR STATE- AND CITY-ADMINISTERED PENSION FUNDS, 1941–59*



* Source: Estimates supplied to the author by an anonymous source for an unpublished monograph for the Commission on Money and Credit for the period 1941–54; for the period after 1954 various publications of the Bureau of the Census.

local government securities. In city-administered funds, investment in corporate bonds equaled three-fifths and two-thirds of net fund inflows in 1958 and 1959, respectively. Increases in state and local government bond holdings composed the remainder of asset growth.

New York City funds as an atypical case.—Total assets of the New York City funds increased about $1.9 billion from 1946 to 1959. Until 1955, the yearly increases funneled into federal and state and local government bonds.[29] After 1955, much of the net yearly inflow of funds went into acquisition of corporate bonds, overwhelmingly utility bonds. At the end of fiscal 1959, $0.3 billion of the total $2.5 billion of assets were corporate bonds, or about 10 per cent. United States government bonds were 17 per cent of assets. However, state and local government bonds were still climbing in total and were 73 per cent of holdings.[30]

This heavy investment distorts aggregate portfolio figures for city-administered funds. Table 4 shows that if New York City funds are subtracted from all city-administered funds, the portfolio of the aggregate is altered drastically. State and local government securities fall to 14.3 per cent of assets. Non-government securities rise from 20.9 per cent to one-third of total holdings. Moreover, if current acquisitions are disaggregated to remove New York City funds' share, virtually the whole of asset growth between 1958 and 1959 consisted of additions to corporate bond holdings.

Contrasts in investing environment.—Two major contrasts emerge in portfolio policy for corporate and public employee pension funds: (1) the importance of state and local government bond holdings in public funds and (2) the conspicuous lag in investment policy for state and city funds in discarding United States governments, adopting corporate stock, and failing to adopt corporate bonds as a major investment before the 1949–52 period. With the exception of the New York City funds, though, the first difference is not so large and may be expected to diminish with time. The other major difference is not so easily dismissed.

The policy lags of the public funds trace back to the circumstances of their respective investment managers. By default or by design, explicitly or implicitly, the corporate employer rules his fund's investment policies. Corporate funds are administered by corporate trust officers, or, if the fund is self-administered, it is often invested

29. Equally important in other contexts is the observation that these issues *all* were New York City bonds.

30. All figures cited from annual reports of the Comptroller of the City of New York.

by professional managers. The investment manager, either corporate trustee or natural person, is responsible most clearly and immediately to the corporate employer. He is responsible, too, to the trust beneficiaries, the corporate employees, but he reports to them very indirectly indeed, and, to date, employees (and, for the most part, their collective representatives) have been inarticulate.

Dominance of the employer's interest typically produces a mandate to maximize fund earnings. Bank-administered funds benefit from the support of full-blown financial staffs, and in many self-administered funds this is true too, perhaps in all the large ones.

The investment managers of state and city funds are not so well situated either with respect to the number of interests they must serve, the clarity of their mandate, or the depth of staffs on which they may rely. Typically, investment of state and city funds is left in the hands of the financial officer of the level of government ad-

TABLE 4*

PORTFOLIO DISTRIBUTION OF NEW YORK CITY FUNDS COMPARED WITH ALL CITY-ADMINISTERED FUNDS, 1959
(Billions of Dollars)

Asset	City-administered Funds (1)	New York City Funds (2)	Col. 1—Col. 2 (3)
Cash	0.1	†	0.1
U.S. government securities	1.4	0.4	1.0
State and local government securities	2.1	1.8	0.3
Own government	1.9	1.8	0.1
Others	0.2	.....	0.2
Non-governmental securities	1.0	0.3	0.7
Total‡	4.6	2.5	2.1
	Percentages		
Cash	2.5	0.3	4.7
U.S. government securities	30.2	16.9	47.7
State and local government securities	46.5	72.6	14.3
Own government	41.9	72.6	4.8
Others	4.6	.....	9.5
Non-governmental securities	20.9	10.2	33.3
Total‡	100.0	100.0	100.0

* Source: Portfolio of all city-administered funds from U.S. Bureau of the Census, *Finances of Employee-Retirement Systems of State and Local Governments in 1959*, Table 1, p. 5. Portfolio of New York City funds from annual reports of the Comptroller of the City of New York for 1959.

† Less than $50 million.

‡ Detail may not add to total because of rounding.

ministering the fund. Investments must stand the scrutiny of the executive branch, the legislature, the covered employees, and, at times, the electorate. Often the investment function is sadly understaffed because it is being called upon to perform tasks never contemplated for it. In many cases the size and character of the staff are anomalous. What is probably a permanently more conservative coloration is given to investing policy by the use of employee-contributed monies in the public funds. In these circumstances the resolution has often been whatever brand of investment that is understandable and acceptable to all concerned, and, as usual, this has most often taken the form of erring on the side of conservatism. In a fishbowl such as this, the premium is too often on mediocrity; the penalties for failure are great, and the rewards of risk and success are slight.[31]

In contrast with the loose legal constraints on the trustee of corporate funds—most often the prudent-man rule or a modification—the trustees and investment managers of state and city funds labor under rather narrow legal limits. But this, as well as many informal taboos, is yielding to pressures for liberalization. Not long ago many state laws confined investment to federal and state and local government bonds. Revolution in attitudes toward portfolio regulation which swept the financial world in the late 1940's and early 1950's did not leave state and local pension funds untouched. The drive for higher yields and the example being set by legal upheaval elsewhere combined to motivate legislatures to incorporate freedom. In some cases it was a matter of employing existing, but unused, freedom.

The force behind this shifting legal environment is not spent. In recent years several states have liberalized laws to allow common-stock investments. In the middle of 1959 common stocks were legal investments for the retirement funds of at least 15 states. There is one enclave of city funds in New England with more than 10 per cent of their assets in stock.[32] There have been moves recently in other states to secure broadened authority for the investing officers

31. It is difficult to improve on the following as a summary: "The investment manager of a public fund, too, has to be ready to report on each year's operations to a group of employees and legislators not known for their understanding of the vagaries of the capital markets. The pressure is strong, then, to do not only what is safe, but also what uninformed people think is safe. Accepting less than a reasonably attainable rate of earnings in order to be eminently respectable is an appealing approach to formulating investment policy" (Roger F. Murray, "New Investment Policies Loom for Public Retirement Systems," *Commercial and Financial Chronicle*, October 1, 1959).

32. Bruce F. Davie, *Investment Practice of Public Employee Retirement Systems* (Research Report to the Federal Reserve Bank of Boston, No. 8 [1959]), pp. 19–20 and Table III.

either by constitutional amendment or by statutory enactment. Simultaneity suggests contagion. Thus the long-term prospects for corporate and public pension funds' portfolio policies are for greater uniformity, if anything.

The mortgage gap is one of the most discussed and puzzling aspects of pension investment for public and private funds. In 1959, mortgage acquisitions by state funds comprised one-fourth of net inflows.[33] City funds have made negligible mortgage investments. Corporate funds channeled about 5 per cent of net inflows to the mortgage market. Very few of these purchases, in either corporate or public funds, are 1–4-family residential mortgages. Instead, most are commercial mortgages in the case of corporate and/or large apartment building mortgages in the public funds. Mortgage-servicing companies have carried on a running flirtation with this burgeoning source of potential financing for residential mortgages but with comparatively little success to date.

Much of the difficulty is the expense of acquiring and managing a residential mortgage portfolio. For bank trustees the problem of unraveling the thorny maze of state doing-business laws imposes forbidding expense. The managers of both public and private funds are in most cases inexperienced with real estate and real estate–secured investments. Mortgage-servicing companies have chipped away at these difficulties over the years and seem to be enjoying a little success. However, it appears *de facto* that the *net* yield on corporate bonds has remained more attractive than the net yield on mortgage investment for the bulk of funds.

The author is inclined to guess that any reversal of these circumstances and large-scale investments in mortgages will be long delayed. It is analytically too narrow to consider alone what may be required of mortgage-servicing companies to entice fund flows from pension funds. What is required is for the net-yield relationships of corporate bonds and residential mortgages to narrow significantly or reverse. It would require a general equilibrium framework and a knowledge of the state of perfection of competition in lending to show it, and we have both for the capital markets only in the vaguest fashion; but the author would be inclined to guess that adjustment to changes of yield differentials would re-establish the differential, rather than reduce it, as suppliers of funds in response shifted portfolio proportions and fund flows away from their former alignments with the various security markets. In so doing they would tend to re-establish old yield differentials.

33. Attributable mostly to the New York State funds.

VI. Summary and Conclusions

Deductive reasoning and empirical review of gross fund flows through corporate, state, and city pension trusts suggest substantial stability in supplies of loanable funds made available through this channel as saving from current income. Additional supplies from dishoarding and accelerating income velocity can largely be ruled out (1) because shifts of demand deposits to claims on pension funds are impossible and (2) because substantial procyclical operations in governments are unlikely. Thus fund flows from these three burgeoning suppliers to the capital markets will be more stable than those from deposit intermediaries and probably more stable than those from the life companies. Ignorance of household saving response to pension accumulations almost entirely prevents us from generalizing about implications for the stability or level of saving and fund supplies in total.

The swift shift of state and city fund-investment policies to a pattern more like that of their corporate brethren and, almost by the same token, more consistent with the fundamental dictates of their liquidity and tax situations presages the flow of the bulk of loanable funds to the markets for corporate securities. Current fund flows in both private and public funds are devoted preponderantly to the acquisition of corporate bonds. In the corporate funds, purchases of common stock are significant. The future probably holds some acquisitions of stock by the public funds. In the author's opinion, increasing residential mortgage investments are not a strong possibility, but real estate and commercial mortgages will probably gain a moderately enlarged place in pension acquisitions.

DISCUSSION

PAUL P. HARBRECT:* While we are certainly justified in dealing with the pension funds from a financial point of view, no view of this institution is adequate that does not recognize its broad social implications. The pension funds are financial institutions, to be sure, but their size is so great and their impact is felt in the lives of so many that they must always be dealt with in the larger context in which they exist.

Certainly, on deeper analysis, one would have to admit that the pension funds are instrumental, that they serve a social purpose. These funds also have an impact on the financial markets, which in turn affect our whole economy. Again, they influence levels of saving and the amount of spending also affecting the economy. Direcently they profoundly affect the welfare of one in four of the millions of individuals who make up the labor force. No architect of the financial structure of the pension funds can afford to ignore these realities. I would like to deal briefly with four problem areas which will show how vitally the pension funds affect the welfare of all of us.

It has been observed that concern over concentration of pension-fund buying of common stocks has been exaggerated. Certainly, if one were to imply that the pension funds were now in a position to control the major corporations of our country, this would indeed be an exaggeration. The New York Banking Department Study disclosed that, as of 1955, the aggregate holdings of pension funds in New York banks never exceeded 2.5 per cent of any one stock issue. While more than 95 per cent of this stock is probably in the portfolios of six or seven New York banks, still the particular issues that approach this maximum percentage are not those of our largest and most influential companies.

The disclosure of these figures is not shocking, but they do illustrate that the degree of concentration is not insignificant and that, in time, it could become a considerable factor. There are many who would deny this, of course, but let us consider the following items:

1. The New York study represents the situation as of 1955. This is 1961.

2. During 1959 the non-insured pension funds grew in the amount

* University of Detroit.

of $3.2 billion, with increases of $2.8 billion and $2.7 billion in 1958 and 1957, respectively.

3. Among the significant developments of 1959 were stepped-up purchases of common stock and a slowing-down in the growth in holdings of corporate bonds. In previous years the non-insured pension funds increased the proportion of their annual income invested in stocks, but usually this was done at the expense of items other than bonds in their portfolios. These items have now sunk to a comparatively low level, and stocks are beginning to be preferred to bonds.

4. The annual rate of increase in asset totals for these funds appears to be slowing, but it is hovering around 14½ per cent. An annual increase of just over 10 per cent will guarantee that these funds will increase by greater absolute amounts each year.

5. A leveling-off in the rate of increase is unlikely before 1970. Mr. Miller's figures provide an interesting summary of this situation. As he points out, 43.4 per cent of the current portfolio of pension funds (at market) is invested in common stocks, and in 1959 the percentage of net receipts invested in common stocks was 49.5.

6. The pension funds (non-insured) have been the largest buyers of common and preferred stocks for the last eight years.

Doubtless these trends could persist for a long time before any bank, acting for its pension funds, owned 51 per cent of one of our major corporations. But even 2, 3, or 5 per cent of the stock of a large corporation would give an institutional investor a good deal to say about the policy of a large company. Given holdings like these across the range of companies in an industry, e.g., in automobiles, the banker-trustee might have a considerable influence on the economic course of the nation. It is also possible in certain situations to control a large industrial corporation through the holding of a relatively small amount of stock.

Another consideration which I cannot explore here is the influence on day-to-day market activity that such a large institutional investor might have. The liquidation of even 2 per cent of the stock of a large corporation's shares might have a profound effect on the market at certain times, and yet fiduciary duties might oblige a pension trustee to take such action. It is not inconceivable that a trustee in such a situation might find himself subject to conflicting loyalties.

The argument is often made that diversification will prevent any undue concentration. There is merit to this contention, but the fact is that the pension funds consistently pay the highest prices for

stocks. This means they buy the blue chips. Furthermore, the studies that have been made in this area indicate that the range of purchases is narrow, as narrow as making one-fourth of all purchases from a group of 25 stocks. Indeed, given the requirement for security in such investments, it is only logical that the range will be limited to the stocks of our largest and strongest corporations.

Financial institutions now own an estimated one-third of all the stocks outstanding. We have evidence of this from surveys of annual purchases and holdings, but examination of the stockholding of individual companies bears out the general finding. Thus the Standard Oil Company of New Jersey has discovered that at least 30 per cent of its stock is owned by financial institutions. A good deal more is owned by undisclosed principals, and we may expect that some of these are also institutions. If financial institutions own about a third of *all* stocks outstanding, it stands to reason that they own an even higher percentage of the larger corporations where they concentrate their purchases.

In our attempt to measure the significance of these trends, it becomes important to know exactly when we may expect the increases of the pension funds to begin leveling off. Thus far we have been able to do little more than guess at the future, but we may hope for much from the results of studies of pension funds now going forward at the National Bureau of Economic Research.

Another question of potential gravity is the security of the pension expectation of the individual employee who is covered by a plan. This is a problem that goes beyond the purely technical aspects of financing a pension plan, though it is not unrelated to finance.

In the typical pension plan the employer is given the right to amend or terminate the plan at will. Thus he may reduce or stop a pension at any time before an employee becomes eligible for benefits. Perhaps two-thirds of all employees covered by non-insured pension plans are protected by a union contract which would prevent an employer from changing the plan. But these contracts seldom run any longer than two or three years and are subject to renegotiation. The third of the covered employees in the United States who have no protection and even those who have a union might find it powerless to coerce the employer to continue paying into a plan or to maintain an existing level of benefits. Thus it is possible that an employee who has been with a company for fifteen or twenty years might find that his pension plan has been reduced contrary to his wishes.

The security of the employee is also jeopardized by the possibility that his company may go out of business or merge with another company. In such cases he will have no recourse at law.

If an employee feels that he has been aggrieved in a matter touching his pension rights, the legal obstacles to a successful suit are, practically speaking, insurmountable. All this may be said about the average pension plan without adverting to the more widely discussed inadequacy of laws against outright fraud and embezzlement of pension funds.

At a stroke, vesting of pension benefits would cure many of these ills. But, as yet, this provision is contained in plans covering only a fourth to a half of the workers who expect pensions.

Since it is generally true that the non-insured pension plan is only as sound as the solvency of the employer corporation, the possibility of a serious and prolonged depression raises questions about pensions that no one likes to think about. Brief intervals of economic recession can be weathered by the average company without too much detriment to its pension fund. But serious setbacks to a business lasting for a period of three to five years might force an employer into a reduction of pension benefits to which even a union could not object.

My next problem is as immediate and practical as the next negotiation of a wage contract in the automobile industry. The UAW leadership has let it be known that it is going to press for a voice in the investment policy of the pension reserves set aside for its members. The union maintains that there is no reason why these reserves could not be invested in ways that would help employees during their work lives as well as after they retire. The union has in mind specifically such investments as low- and middle-income housing projects. The feasibility of such investments has been demonstrated by the clothing workers' unions in New York City, and some of the Ford pension money is already invested in housing. The UAW is prepared to argue that if other financial institutions can profitably invest their money in this way, pension funds can too.

The employers stoutly maintain that they are unwilling to subject these trusteed funds to venturesome and speculative investment. This raises the nice question of whose money is really being invested, a problem that has never been solved, though the $45 billion in pension funds has been accumulating for decades. If the funds belong to the workers, why should they not have it invested by whomever and however they wish? On the other hand, if the money is still subject to the control of the companies, who only undertake to pay a cer-

tain monthly pension at a given time, then the union has no right to participate in its investment.

The very existence of such a question in our capitalist society suggests my last problem.

What do the pension trusts tell us about the present evolutionary stage of our capitalistic system? It has been observed that approximately 70 per cent of the productive property in the United States is owned by large corporations. Thus the major part of our productive wealth is at once removed from individual control. The ownership of these corporations is now beginning to pass into the hands of the financial institutions, as we have seen above. Only by an extreme attenuation of the concept, can we say that these corporations and institutions are subject to private ownership, and we cannot say that they are individually owned at all. Therefore, with the rise of institutions of which the pension funds are a prime example, we see on the horizon a serious question regarding the private character of ownership in our society. I would suggest that property ownership and control is one of the major problems which the pension funds and other fiduciary institutions will pose for us in the coming years.

In conclusion I would like to say that these four problems demonstrate the need for more intensive study of the pension funds. It is my conviction that the financial institutions present issues that must be met and solved by the entire community that calls itself the United States.

ROGER F. MURRAY:* In the two papers given by Messrs. Miller and Andrews, we have a comprehensive picture of those pension programs, both public and private, that involve substantial accumulations of funds for investment through the capital markets. The authors have brought into focus a number of the questions of interest to all students of finance, some of which, it seems to me, deserve further comment and elaboration.

Mr. Miller has appropriately identified both growth and change in the investment operations of private pension programs, emphasizing, in the case of trusteed funds, the progressive substitution of long-term yield as the virtually exclusive objective of investment management for such historical trustee objectives as liquidity, marketability, and price stability. Direct placements, mortgages, real estate, and common stocks have scored a clear victory over public issues of federal government obligations in the contest for this in-

* Columbia University.

creasing flow of long-term funds. The changes in life insurance company assets mirror comparable portfolio policies for insured funds, except that statutory limits have restricted the extent of the shifts.

The implications of these portfolio-management policies are highly favorable for financing business and private construction at long term, but they must give pause to the Secretary of the Treasury and the financial officers of state and local governments. For the latter, tax exemption has become a privilege of shrinking value. For the U.S. Treasury, the problem of orderly debt management under an interest-rate ceiling appears more difficult than ever, particularly if we assume that, under some circumstances, the lengthening of maturities may be appropriate. Indeed, it is no exaggeration to say that the federal government has succeeded beyond the dreams of the most eager proliferator of spending programs outside the budget in making its indirect obligations competitive with its direct ones. Federal Housing Administration insurance, Veterans Administration guaranties, Maritime Commission guaranties, Federal Services Administration leases, and the federal government's support of the long list of agency borrowers have created an ample supply of these indirect obligations for the long-term investor willing to give up varying degrees of liquidity and marketability in exchange for a better yield. Life insurance companies and corporate pension funds have agreed with the lawmaker that these obligations are "just as good." Except for the wealthy individual on his deathbed, able to pay estate taxes with long governments at par, who really wants a twenty- or thirty-year direct obligation?

There was a time when the retirement systems of state and local governments were a captive source of substantial funds for the long-term obligations of all governmental units. But Mr. Andrews points out how more enlightened investment management and a relaxation of statutory restraints have resulted in the shift of public funds to business securities and real estate mortgages. Unless advance refundings can be successfully carried out again and again, it is increasingly apparent that the Treasury may lose most of a $5 billion market for its long-term bonds. Indeed, one is tempted to speculate on the feasibility of state and local governments engaging in advance refunding operations to take advantage of the very strong "locked-in" effects which seem to deter public fund administrators from selling low-yield bonds at a loss.

The composition of pension-fund investment portfolios and the trends described by Messrs. Miller and Andrews represent the effects

of the market forces operating during recent years. Favorable yield differentials triggered the move of trusteed funds into common stocks, direct placements, and real estate loans and investments. Many public funds eventually broke out of a narrowly circumscribed investment sphere as a response to market forces. Will the market place continue to exert the predominant influence of fund flows? Or will non-market factors assume greater influence in the future?

Some public officials argue that their retirement systems ought to finance schools, public construction, or industrial development in the areas from which tax revenues are derived, even though the rate of return, all things considered, is less than could be obtained elsewhere. Mr. Miller reminds us that union officials advocate middle-income housing or other social objectives favored by their members. These suggestions are that we should appraise investments not only in terms of the rate of return as objectively measured in the capital market but also by a subjectively derived scale of social benefits. If retirement programs are affected with the public interest, as they undoubtedly are, should not their investment activities be directed by some standards of social usefulness?

Since this point of view is held by many of those influential in the process of collective bargaining for pensions, as well as some public officials, it is likely that attempts will be made, in the years ahead, to introduce non-market factors to a greater extent in the investing decision process. I, for one, hope that fund administrators will be able to resist these pressures. In the first place, it is doubtful that, in a reasonably fluid capital market, the objectives will actually be well served. Second, I know of no way to equate a certain content of social desirability with a certain sacrifice in yield. Third, it is by no means clear that retirement systems are either the appropriate or the most effective vehicle for accomplishing most such objectives; nor is it clearly equitable that such costs should be shifted, in effect, to pension beneficiaries. Finally, I believe that thoughtful students of the operations of our saving and investment process should not be willing to see our market mechanism for allocating funds tampered with in the absence of more convincing proof that the modifications will be both effective and constructive in attaining over-all objectives of national policy.

An important topic discussed by Mr. Andrews is the effect of channeling savings through pension programs on the supply and stability of loanable funds. Pertinent to this subject is the evidence of our study of household saving responses in the National Bureau

of Economic Research project on the economics of pensions. All of us were somewhat surprised by the results, although we were prepared to expect less than complete substitution of saving through pension programs for savings in other forms. However, my colleague on the research staff of the National Bureau, Phillip Cagen, has made a very careful analysis of the survey results, and it seems clear that pension accumulations do, in fact, represent an almost complete addition to aggregate saving, even after allowing for some possible offsets from reduced saving by business and government.

Most pertinent to Mr. Andrews' discussion may be the thought that, given an increase in the level of total personal saving, households may be less stable in their behavior during periods of cyclical or other disruptions in economic activity. Put another way, while the concurrent accumulation of pension-fund equities may not reduce saving in other forms, the existence of these accumulations may in the future affect attitudes toward the forms in which other savings are maintained. Since pension coverage often includes disability provisions and is frequently part of a package of fringe benefits including group life insurance, accident and health insurance, etc., liquidity needs visualized for other saving forms may appear less urgent in periods of high economic activity, inflationary pressures, and high interest rates. If so, we should conclude that pension programs, in company with the other fringe benefits, have contributed to a rise in income velocity as customarily measured.

As both these papers clearly show, the growth of pension-fund accumulations in their several forms has imparted a degree of stability to the supply of funds for long-term investment and enhanced the flexibility of the capital markets in meeting changing conditions. This is a sober view, which is supported by the facts, as contrasted with extreme notions as to the impact on equity security prices which sometimes circulate south of Fulton Street on the island of Manhattan during a bull market.

BUSINESS PROCEEDINGS, AMERICAN FINANCE ASSOCIATION

Minutes of the Annual Membership Meeting
December 29, 1960

This meeting was held at the Chase Park Hotel in St. Louis. The meeting was brought to order at 4:35 P.M. by President Van Arsdell. About 75 members were present. The minutes of the previous meeting were accepted as printed in the *Journal of Finance*, 1960.

The report of the Secretary-Treasurer was distributed by George Hassett, who indicated that the receipts for the year were good, but with the increases in expenses the amount carried to surplus was normal. The report was accepted as submitted.

William Alberts distributed the report of the Editor, Acting Editor, and Associate Editor. The report indicated that the number of manuscripts being received and evaluated by the editors of the *Journal of Finance* has continued to rise. In 1960 there were 104 articles evaluated, as compared to 84 in 1959. The problem of imbalance in the number of articles that are submitted still exists: manuscripts tend to be concentrated in the business finance, international finance, investments, money and banking, and public finance divisions, while few are received in the consumer finance, insurance, and real estate finance divisions. The Editors' report was approved as submitted. The report of the Advertising Manager was submitted and discussed by Mr. Alberts in the absence of Erich Otto. This report indicated that advertising receipts had held up during the year despite the increase in advertising rates.

Ernst Dauer, Institutional Chairman, indicated that he had communicated with Norman Strunk, Roy Reierson, James O'Leary, and Grover Ensley and that they were actively engaged in promoting an increase in the number of institutional members. During the year there was an increase of 24 institutional members. President Van Arsdell thanked Mr. Dauer for the outstanding contribution he and his committee had rendered the Association.

In the absence of Chairman Harold Stevenson, Bion Howard submitted a report for the Student Affiliates. There has been a considerable increase in the number of Student Affiliates. The report was accepted as submitted.

Lewis E. Davids reported that a new regional organization, the Southern Finance Association, had been formed to function as a subsidiary of the American Finance Association and to meet in conjunction with the Southern Economic Association. The response to the new Association has been enthusiastic, and it was agreed that the regional program is consistent with the objectives of the American Finance Association and that this type of activity could, in fact, lead to increased membership in the A.F.A.

Richard Ball reported for the Midwest Area Group of the American Finance Association and announced that the group's program would be held April 14–15, 1961, at Indianapolis in conjunction with the annual meetings of the Midwest Economics Association.

George Hassett discussed the heavy increase in the editorial work load of the *Journal of Finance* and the recommendation of the directors of the Association that the members approve a bylaw change authorizing appointment of a total of three Associate Editors. A motion to adopt and implement this recommendation by appropriate amendment of Article VII, Section 2, was approved unanimously.

The members were advised that the annual meeting in 1961 would be held on December 28–30 in New York City, with headquarters at the Hotel Commodore. The general chairman will be Robert Lindsay.

A resolution was introduced, and unanimously approved, to thank Mr. Homer Jones, the general chairman on arrangements, and his committee for their excellent service. The membership instructed that letters of appreciation be sent to Homer Jones. Another motion was introduced, and unanimously approved, to thank the outgoing officers and directors for their loyal and effective co-operation during the past year and for their outstanding contribution to the success of the meeting.

It was announced that Harold Fraine would succeed Joel Segall as Editor of the *Journal of Finance*. William Alberts, who served as Acting Editor during the last half of the year, will continue as Associate Editor. The membership voiced a resounding approval for the performance of the retiring Editor, Joel Segall. Paul Van Arsdell reiterated appreciation for the consistent co-operation and dependable service of the directors, officers, committee chairmen, and various individual members of the Association through the past year.

The Secretary-Treasurer announced that the following were elected as officers and directors for the year 1961: President, Arthur M. Weimer; Vice-President, Bion B. Howard; Directors: Business Finance, J. Fred Weston; International Finance, Henry C. Murphy; Investments, Roger F. Murray; Money and Banking, Eli Shapiro.

President Van Arsdell then presented Arthur Weimer as the new President for 1961. President Weimer thanked the outgoing President for his outstanding performance and indicated special pleasure for the opportunity of serving the Association. A resolution was introduced asking the President to thank the University of Chicago for the services of Joel Segall and William Alberts and New York University for the services of George Hassett.

The meeting was adjourned at 5:20 P.M.

Respectfully submitted,

GEORGE E. HASSETT, JR.
Secretary-Treasurer

INSTITUTIONAL MEMBERS

Allied Chemical Corporation
American Investment Company of Illinois
American Metal Climax, Incorporated
American Security & Trust Company, Washington, D.C.
American Telephone and Telegraph Co.
Armstrong Cork Company
Atchison, Topeka & Santa Fe Railway System
Bank of America, N.T. & S. A.
Bank of Canada
Bank of New York, New York, New York
Bankers Trust Company
Beloit State Bank (Beloit, Wisconsin)
Beneficial Management Corporation
The Broadview Savings & Loan Company (Cleveland, Ohio)
Buffalo Savings Bank
Burroughs Corporation
Capital Finance Corporation (Ohio)
Chase Manhattan Bank
Chemical Corn Exchange Bank
Cincinnati Gas and Electric Company
C.I.T. Financial Corporation
Coast Federal Savings & Loan Assoc. of Los Angeles
Columbia Federal Savings and Loan Association (Washington, D.C.)
Commercial Credit Company
Consolidated Natural Gas Company
Continental Baking Company
Credit Union National Association
Cummins-American Corporation (Chicago, Illinois)
Dade Federal Savings & Loan Association of Miami
Deere & Company
C. J. Devine and Company
Dun & Bradstreet, Inc.
E. I. du Pont de Nemours & Company
Equitable Life Insurance Company of Iowa
Family Finance Corporation (Wilmington, Del.)
Family Loan Company (Saginaw, Michigan)
Fireman's Fund Insurance Company
First Federal Savings and Loan Association (Peoria, Illinois)
First Federal Savings & Loan Association of Miami
First Federal Savings & Loan Association of St. Petersburg
First National Bank of Boston, Melrose, Massachusetts
First National Bank of Chicago, Chicago, Illinois
First National City Bank of New York
Ford Motor Company
General Finance Corporation (Evanston, Ill.)
General Foods Corporation
General Motors Corporation
Great Western Savings & Loan Association (Los Angeles)
Guardian Life Insurance Co.
Home Federal Savings & Loan Association of San Diego
Household Finance Corporation
International Business Machines Corporation
International Harvester Company
Interstate Finance Corporation (Evansville, Ind.)
Irving Trust Company, New York, New York
Keystone Custodian Funds, Inc.
Aubrey G. Lanston & Co., Inc.
Liberty Loan Corporation (St. Louis, Mo.)
Local Loan Company (Chicago, Illinois)
Manufacturers Trust Company
Mellon National Bank & Trust Company, Pittsburgh 30, Pennsylvania
Metropolitan Life Insurance Company
Minnesota Federal Savings & Loan Association (St. Paul)
Mutual Life Insurance Company of New York
National City Bank of Cleveland, Ohio
New York Savings Bank
The Northern Trust Company (Chicago)
Old Colony Co-operative Bank (Providence, Rhode Island)
Old Colony Trust Company, Boston, Massachusetts
Pacific Finance Corporation
Pacific First Federal Savings & Loan Association (Tacoma, Washington)
Pacific Gas & Electric Company
Philadelphia National Bank
Philadelphia Savings Fund Society
Prudential Insurance Company
Public Service Electric and Gas Co. of New Jersey
Republic National Bank of Dallas, Dallas 22, Texas
Rosenthal & Rosenthal, Inc.
Salomon Bros. and Hutzler
Savings Banks Trust Company
State Loan & Finance Corporation (Washington, D.C.)
Woodmen Accident and Life Company (Lincoln, Nebraska)